DOCUMENT RESUME

ED 404 435 CE 066 251

TITLE	Creatively Exploring the Future. Proceedings of the Annual National Research Conference on Human Resource Development (2nd, College Station, Texas, March 25-26, 1994).
INSTITUTION	Texas A and M Univ., College Station. Dept. of Educational Human Resource Development.
PUB DATE	Mar 94
NOTE	156p.; Figures may not reproduce well. Conference also sponsored by the Brazos Valley Chapter of the American Society for Training and Development.
AVAILABLE FROM	Department of Educational Human Resource Development, Texas A&M University, College Station, TX 77843-3256 ($20).
PUB TYPE	Collected Works - Conference Proceedings (021) -- Reports - Research/Technical (143)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Adult Education; Educational Research; Employed Women; *Futures (of Society); Human Resources; *Labor Force Development; Mentors; *Organizational Development; Problem Solving; Self Actualization; Training

ABSTRACT

This document contains 21 papers: "Benchmarking Training--The Road to Continuous Improvement" (Bolin); "Systematic Mentoring: A Crucial Addition to Leadership Development" [abstract only] (Brennan, Pevoto); "Monkey Wrenches in the Team Clockwork" (Daman); "Multiculturalism: Curriculum and Practice" (Dean et al.); "Personal Computer Training 2000--Time for a Change" (Edwards); "Multicultural Adult Education in the United States, or 'We'll Deal with that Next Year'" (Edwards); "Women in Management--Climbing the Corporate Ladder" (Ellis); "Using Focus Groups to Develop More Realistic Training" (Griggs, Stewart);"Empowerment: Using Groupware to Create an Anonymous Forum to Discuss Workplace Issues--Lessons Learned" (Homan); "Trainer as Leader: A Catalyst for Workplace Change" (Ilacqua); "A New Myth Concerning Older Workers?" (Jackson); "The Effects of Goal Setting and Two Methods of Goal Origin in Transfer of Time Management Training to the Job" (Langston); "The Roles Consultants Play in Problem Solving Activities in Human Resources Development Settings" (Londoner); "A Conceptual Systems Approach Model for Collaborative Consulting in Human Resource Development" (Londoner); "Reading Manuals of Industry: Are They a Hazardous Material?" (Martin); "Learning in Context: Creating the Learning Organization" (Paprock); "Mentorship as a 21st Century Paradigm for Enhanced Individual Development with Human Resource Development Programs" (Sanders, Lee); "Workplace-Reasonable Accommodation Training" (Seifert); "Modeling Argyris' Action Science" (Shindell); "Exploring the Impact of Human Factors Technology in Human Resources Development" (Tesoro); and "Women Academics and Their Careers: The Impact of Creativity" (Yakimovicz, Ingram). Most of the articles contain references. A list of presenters' names and addresses is included. (KC)

Proceedings of

Creatively Exploring the Future

ED 404 435

The Second Annual National Research Conference on Human Resource Development

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

March 25-26, 1994
College Station, Texas

"PERMISSION TO REPRODUCE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY
A Yakimovicz
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CR 066251

Sponsored by:
Texas A&M University
Department of Educational Human Resource Development
and American Society for Training and Development
Brazos Valley Chapter

BEST COPY AVAILABLE

Proceedings of

Creatively Exploring the Future

The Second Annual
National Research Conference on
Human Resource Development

March 25–26, 1994
College Station, Texas

Sponsored by:
Texas A&M University
Department of Educational Human Resource Development
and American Society for Training and Development
Brazos Valley Chapter

NOTICE

These proceedings include papers received prior to the printing deadline. Content was the responsibility of each author or group of authors. Editing and proofreading were also the responsibility of the authors.

For additional copies of the National Research Conference on Human Resource Development Proceedings (NRCHRD-1994), send $20.00 (U.S. funds) to:

Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256

Copyright for the included materials is retained by the authors.

Photocopying services for these proceedings were provided by Copy Corner, 1710 George Bush Drive, College Station, Texas.

Adult/Literacy Education
Human Resource Development

Industrial/Technical Education
Distance Learning

TEXAS A&M UNIVERSITY
Department of Educational Human Resource Development
College of Education
College Station, Texas 77843-3256
(409) 845-3016
FAX (409) 845-0409

March 9, 1994

Dear HRD Colleagues,

It is my pleasure to welcome you to the Second National Research Conference on Human Resource Development.

We are happy to again host this conference in Texas and as an annual event at Texas A&M University. It is our hope that this conference will prove to be a productive and pleasurable experience for all of you.

The national referees have selected a variety of provocative and well-conceived papers for presentation and discussion. The four-track program is planned to meet the interests of the diverse mix of academics and practitioners working in human resource development. Our interaction at conferences such as this are a vital part of learning and practice in this changing world.

On behalf of Ann Yakimovicz, Conference Coordinator, and myself we wish to thank the graduate students and personnel of the Educational Human Resource Development department at Texas A&M University and those beyond the university whose hard work has made this conference possible.

I look forward to meeting with many of you during the conference. "Y'all" enjoy your visit.

Larry M. Dooley

Larry M. Dooley
Conference Chair and Executive Editor

Adult/Literacy Education
Human Resource Development

Industrial/Technical Education
Distance Learning

TEXAS A&M UNIVERSITY
Department of Educational Human Resource Development
College of Education
College Station, Texas 77843-3256
(409) 845-3016
FAX (409) 845-0409

March 9, 1994

Dear Researcher:

On behalf of the Department of Educational Human Resource Development, the College of Education and Texas A&M University, I would like to welcome you to the Second Annual National Research Conference on Human Resource Development. I sincerely hope that the conference is enjoyable, as well as a productive part of your scholarly activities.

While members of the academic community are conducting substantial basic research and building the human resource development theory base, practitioners are conducting applied research to determine situation-specific practices and applications. This year's theme, **Creatively Exploring the Future**, was chosen to emphasize these two important working environments which comprise Human Resource Development.

The papers that are a part of these Proceedings were all reviewed and selected by noted researchers in the field in a blind review process. The proceedings will be catalogued in ERIC as a document. The quality of the enclosed research is excellent and sets the stage for a continued effort at annual Human Resource Development Research conferences.

Enjoy the Proceedings and the Conference!

Sincerely,

Lloyd Korhonen
Professor and Head

Conference Staff

Conference Chair and Executive Editor: Dr. Larry Dooley

Conference Coordinator: Ann Yakimovicz

Proposal Review Committee:

Dr. Glenn "Gus" Baker
Texas A&M University

Board of Directors
Brazos Valley ASTD

Dr. Brad Courtney
University of Georgia

Dr. Sean Courtney
University of Nebraska

Dr. Larry Dooley
Texas A&M University

James Folkestad
Texas A&M University

Dr. Gary Green
University of Oklahoma

Dr. Lloyd Korhonen
Texas A&M University

George Matott
Texas A&M University

Kristi Nickolett
Texas A&M University

Dr. Ken Paprock
Texas A&M University

Dr. Allan Pevoto
Regis University

Dr. Hallie Preskill
University of St. Thomas

Dr. Walter Stenning
Texas A&M University

Events/Registration Chairs:
Michael Boyle
Brad McGonagle

Graphics Coordination: Maria Mouzes

Proceeding Editors:
Charles V. Goodman
Rhoda Segur

Program Chair: Priscilla Shou

Publicity Chair: Sandra Chumchal

Volunteer Coordination: Christi Sherrod

Special Assistance:
Susan Gandy
B/CS Visitors Bureau

Josephine Arevalo
Anne Koppa
Sally Lesher
EHRD Department
Texas A&M University

Table of Contents

Barbara Bolin	Benchmarking Training—The Road to Continuous Improvement	1
John Brennan **Alan Pevoto**	Systematic Mentoring: A Crucial Addition to Leadership Development	7
Paran T. Daman	Monkey Wrenches in the Team Clockwork	8
Paul Dean **Yvonne Eixmann** **Cathy Hamilton** **Deana Henry** **Deva Syam**	Multiculturalism: Curriculum and Practice	17
Gloria Edwards	Personal Computer Training 2000—Time for a Change	33
Pamela K. Edwards	Multicultural Adult Education in the United States, or "We'll Deal with that Next Year"	39
Sharon Ellis	Women in Management—Climbing the Corporate Ladder	47
Harriet Griggs **Barbara Stewart**	Using Focus Groups to Develop More Realistic Training	53
Scott Robert Homan	Empowerment: Using Groupware to Create an Anonymous Forum to Discuss Workplace Issues—Lessons Learned	55
Joseph A. Ilacqua	Trainer as Leader: A Catalyst for Workplace Change	59
T. F. Jackson	A New Myth Concerning Older Workers?	67
Mildred Bunch Langston	The Effects of Goal Setting and Two Methods of Goal Origin in Transfer of Time Management Training to the Job	77
Carroll A Londoner	The Roles Consultants Play in Problem-Solving Activities in Human Resources Development Settings	85
Carroll A. Londoner	A Conceptual Systems Approach Model for Collaborative Consulting in Human Resource Development	93
JoAnn Martin	Reading Manuals of Industry: Are They a Hazardous Material?	106
Kenneth E. Paprock	Learning in Context: Creating the Learning Organization	117

Martha J. Morgan Sanders **Carla A. Bouska Lee**	Mentorship as a 21st Century Paradigm for Enhanced Individual Development within Human Resource Development Programs	123
Linda L. Seifert	Workplace-Reasonable Accommodation Training	129
Tom Shindell	Modeling Argyris' Action Science	135
Ferdinand Tesoro	Exploring the Impact of Human Factors Technology in Human Resources Development	141
Ann Yakimovicz **Peggy Ingram**	Women Academics and Their Careers: The Impact of Creativity	147
	Author Contact Information	153

Benchmarking Training—The Road to Continuous Improvement

BARBARA BOLIN, Dell University

> **If you know the enemy and know yourself, you need not fear the result of 100 battles.**
> Sun Tzu

Within corporate America, benchmarking has progressed from buzzword to an established approach to continuous improvement. Since benchmarking was introduced by Xerox in the early 1980s, there has been an emphasis on how companies can use the procedure to improve the quality of products and services. This emphasis has been further enhanced by the quest for the Malcolm Baldrige award, whose criteria specify stringent benchmarking procedures.

During the last decade, there has been a trend toward increasing the time and effort expended on training within the American workforce. These changes have usually been forced by technological changes and/or the customer's demand for higher quality. Billions of dollars are now spent annually in training departments all over the country. Many large corporations have also created their own training universities to guarantee the best training for their employees. It is not surprising, therefore, that many of these same large corporations are requiring that their universities be benchmarked as a means of ensuring the best "bang for the buck". Few would argue that the goal of a learning organization is to provide cost efficient, high quality services to its customers, both internal and external, and to create a skilled, effective workforce. Benchmarking can assist in this quest.

Benchmarking Defined

So what exactly is benchmarking, and how can it be used in HRD? There are many excellent definitions of the term:

- A standard against which something can be measured; a survey mark of previously determined position used as a reference point (Webster's New Twentieth Century Dictionary)
- A structured approach for learning from others and applying that knowledge (Ford)
- The search for proven better performance that can be adapted to, improved upon, and adopted throughout an organization (Helton)
- The search for industry best practices that lead to superior performance (Xerox)
- A process that compares a company's high leverage practices with "best practices" in excellent organizations, and promotes consideration for change based on those practices to improve profitability, productivity and employee satisfaction (Dell Computer Corporation)

Benchmarking is an integral part of the quality improvement process, and as such it must be on-going. It involves setting new directions for a company or a training establishment in the quest for the most effective way of using resources and meeting customers' needs. Camp makes the point that "benchmarking is a discovery process and a learning experience," and it is certainly true that a benchmarking initiative can teach training specialists and others in a company a great deal about that company and its training practices. It forces an objective look at the way classes are run, at how training materials are prepared, and at how effective training is. It often also forces improvement in training processes or the establishment of processes where none were used previously. How can you compare your system with that of another company if your system is virtually non-existent?

It is a mistake to only compare your training methods with those used in companies in the same industry. Comparing yourself only with your competitors who are probably using the same business paradigm as your company exposes you to the risk of stagnation. By comparing your methods with others outside of your "field" you have the opportunity to be innovative.

Metrics

There is a quantified aspect to the comparison process in benchmarking. "Best practices" are usually determined using data collected over a period of time. These data are a result of the application of metrics within the process under examination. Examples of such metrics are: the average percentage of satisfied trainees; the average time it takes for a new hire to perform at the accepted level within a department. Many of the metrics used in benchmarking training are relatively easy to formulate and implement. Others, however, are very difficult to establish and collect. Planning for these metrics can occupy a great deal of a training specialist's time.

Meaningful Metrics

It is essential that the training specialist ensures that the metrics used in the benchmarking process are meaningful. It may be helpful to define the term "meaningful metrics", and a real-world example can be used.

Several years ago, a 100 question technical examination was compiled for use as a pretest/posttest in new hire training. This test was merely compiled—that is, no statistical analysis was ever performed on the questions or the test as a whole to test for validity or reliability. In fact, the questions were never updated—a cardinal sin in the fast-changing world of technology. This test took trainees almost four hours to complete and was used as evidence of "learning".

When I came upon this test and discovered its usage, I decided first to bring it up to date. When forced to confront the questions, the trainers discarded 34 of the 100 questions because they were inaccurate or outdated. Then I administered the test as a pretest to two groups of trainees and ran a reliability coefficient on the results. The Kuder-Richardson results were surprisingly high (approximately 0.9), but when I examined posttest results from the same test, very little improvement was noted in the trainees' results, despite the fact that performance testing and on-the-job training indicated that a great deal of learning had taken place. Obviously, there was a problem with the validity of the test, so I suspended the use of the test and the collection of pretest/posttest data until the test could be worked on. The data collected previously was not at all meaningful; that is, the results were just numbers, not telling anything about the training process and the learning that had taken place.

Unfortunately, many companies spend a great deal of time and money collecting worthless data. They then use it as evidence of good performance. It is the responsibility of every training specialist to ensure that the training metrics they use in their benchmarking process are meaningful.

Benchmarking Models

There are several models on which to benchmark training, but perhaps the simplest is based on Deming's four-step quality improvement model: Plan, Do, Check and Act. Of these four stages, planning is the most critical to the success of the process and is worth spending considerable time on. Benchmarking is very time consuming and therefore expensive. A thorough, protracted planning period can often prevent the unnecessary expenditure of a lot of money.

Plan.

The planning stage of the benchmarking process covers Sun Tzu's requirement to "know yourself". It includes an analysis of current practices and clarification of procedures. For many training specialists this is the hardest part of the benchmarking process because it requires the cooperation and often the training of others in the organization. While benchmarking may be the top priority of the HRD specialist, it is probably low on the list for others, particularly personnel whose daily performance has an immediate and direct effect on the profitability of the company. It sometimes takes a major effort on the part of the trainer to gain the acceptance of these people and to enlist their help in benchmarking.

It is also important to decide what questions are going to be asked in on-site visits or in surveys. Questions must be relevant; never be guilty of asking questions just because "it would be nice to know". Questions can and should be pretested in-house or with an outside organization.

As with all quality improvement endeavors, it is essential that support for the benchmarking undertaking come from the top. A memo from the CEO, or better yet time and money set aside for benchmarking training, lends enormous credibility to the procedure and invariably guarantees the support of those who have the needed benchmarking information.

The components which constitute the planning phase can be seen in Figure 1.

Plan:	Identify the process to be benchmarked Identify companies for comparison Identify/establish metrics & collect data
Do:	Determine current performance gap Project future performance levels
Check	Communicate findings & gain acceptance Establish goals
Act	Develop action plans Implement actions & monitor progress Recalibrate benchmarks

Figure 1: The Benchmarking Process

1. Identify what needs to be benchmarked.
   The term "high leverage practices" used in the definition of benchmarking refers to the products and/or services which most directly affect the bottom line of the company. Because training is a large part of many budgets and because it contributes

to the bottom line through improved employee performance, it constitutes a high leverage practice.

2. Identify comparative companies.
   A cross-section of companies who are both direct and indirect competitors should be used. Information on these companies is available through database searches conducted by organizations such as the American Productivity and Quality Center's International Benchmarking Clearinghouse. These searches will usually yield company names, bibliographies, and sometimes even the names of contacts within the companies identified.

3. Understand your process.
   Flow-charting the training process will clarify the process, identify weaknesses, and will also give an indication of where and what metrics should be applied.

Training metrics.

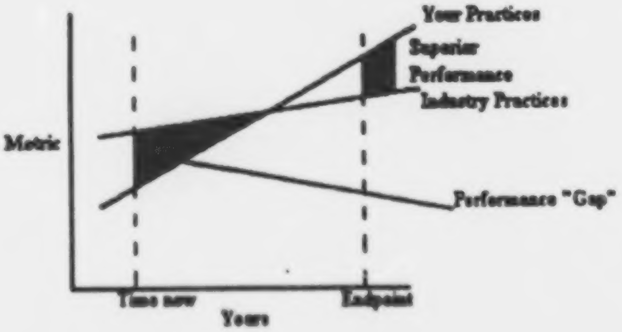
The metrics which are available to HRD specialists fall into three main categories:

- training activity (how much?)
- training results (how well?)
- training efficiency (are resources being maximized?)

Other categories which should be used in conjunction with the main three are: Learning and Reaction. Within these categories are several metrics which have become established over years of usage as being meaningful and worthwhile (Ford). These are usually easy to obtain, e.g., % payroll spent on training = total training expenditures/total payroll. Others are much harder to obtain, e.g., cost savings as a ratio of training expenses = total savings in waste/$ invested in training. This metric is obviously much easier to use in a manufacturing context than in a service industry, but it is always difficult to use. Other examples of metrics a training professional might consider are shown in Figure 2.

Do.

The Do phase of benchmarking is the analysis of how your company compares with those against which you decided to benchmark. It involves data collection from other learning organizations via surveys, on-site visits and interviews. The questions that need to be asked at this point are: Is the benchmarked company better? Why are they better? By how much? This analysis usually results in the recognition of an identified performance "gap".



BEST COPY AVAILABLE

Most often the deficit is within your company (score a negative for your company), but sometimes it is with the other company (score a positive for your company), proving that your performance in that particular process is adequate if not superior!

From the analysis of the performance "gap", the training professional should project future performance levels within their training department in order to convert the performance "gap" to superior performance.

This means asking the question: How can the best practices of company X (against whom you scored a negative) be incorporated or adapted for implementation in your training department?

It is often surprising to professionals new to the benchmarking process just how easy it is to get data from rival companies. Perhaps the explanation for this lies in the fact that benchmarking is not stealing, borrowing or mindless replication, but is rather the seeking and sharing of business intelligence (Helton). In many cases, it can "spur competitive advantage".

Check.

This step is the key to the success of the benchmarking initiative because the benchmarking findings have to be translated clearly into a statement of operational principles for the training organization, as a blueprint for improvement. This plan sets the rules for everyone involved with the improvement process, and includes a clear delineation of where improvement is expected, how much is expected, and when that improvement is expected. Everyone connected with the process has to "buy in" to this plan for improvement, even if it appears to mean extra work (this is usually not the case once the plan is implemented) or to be expensive. This latter complaint is usually heard from upper management and must be countered by an explanation of how much it will cost the company if improvements are NOT made. This counter argument should be prepared by the training specialist before the benchmarking initiative is undertaken. It is best considered as part of the planning process.

Action.

It is imperative that the training professional monitor the rules of operational improvement while, at the same time, setting realistic, measurable goals for those involved. There must be universal acceptance of the plan for action or the improvement initiative will fail. It is necessary for the training professional to rely on the people "on the front line" for the honest assessment of progress. Without their support, the whole benchmarking process can disintegrate. Feedback is an essential part of the communication process, and it is particularly important in the quest for continuous improvement.

Change is constant, and so benchmarks have to be continually recalibrated. This involves a complete review of all of the benchmarking process steps. A benchmarking professional should never assume that anything is as it was in the beginning.

Conclusion

Change for change's sake should always be avoided, and it is not necessary to meddle with a training process that is working. However, it is a rare training institution that needs no improvement.

Benchmarking is of proven benefit in the quest for excellence. It is not easy, and the training professional who is undertaking the procedure for the first time is advised to proceed slowly and with caution. Start with one or two processes rather than the whole training program.

Benchmarking takes time and skill. It requires research—on current practices and results; on who the best companies are to benchmark against; diplomacy—to get the information you need from people inside and outside the training institution; analysis—to modify the successful practices of others to fit your organization; and it must be continuous.

BEST COPY AVAILABLE

Metric	Metric type	Calculation	Example
Average % of positive participant reactions per year	Reaction	Total # employees rating courses "effective"/# who completed surveys	93% for 3 Baldrige winners in 1990
Average % gain in learning per course	Learning	Average % of learning gain (difference between pre-posttest) for each class, averaged over all classes tested	70% learning gain for 3 Baldrige winners over 50 technical classes in 1990
Average % improvement in on-the-job performance after training per course	Behavior	Average job-performance gain (difference between pre-posttraining behavior) for each class, averaged over all classes measured	49% improvement in management ratings after supervisor training in an electronics firm in 1990
Training $/employee	Activity	Total training expenditures/total employees served	$1100/employee by 3 Baldrige winners in 1990
% employees trained per year	Activity	Total # employees receiving training/total employee population	92.5% by 3 Baldrige winners in 1990
Training costs per student hour	Efficiency	Total cost of training/ total # hours of training	$27 per hour for 3 Baldrige winners in 1990
% customers reaching required standard (>85%)	Learning	# customers reaching req. standard/# customers taking course	

Figure 2. Commonly used training metrics.

References

Camp, R.C. (1989). *Benchmarking—the search for industry best practices that lead to superior performance*. Alexandria, VA: ASQC Quality Press.

Ford, D.J. (1993). Benchmarking HRD. *Training & Development*, 47(6), 36-41.

Helton, B. R. (1993, September) Benchmarking. *The Quality Observer*.

Systematic Mentoring™: A Crucial Addition to Leadership Development

JOHN BRENNAN, Adult Learning Futures, Inc.
ALLAN PEVOTO, Regis University

Abstract

Systematic Mentoring is a process for creating a cultural change within the organization, creating a cultural change in leadership and organizational development, and creating a system for mentor development and support. Systematic Mentoring cultivates aspiring leaders within the organization, enabling them to both learn about themselves and begin to take leadership action in a systematic way.

Monkey Wrenches in the Team Clockwork

PARAN T. DAMAN, University of Arkansas

Shooting Oneself in the Foot?

Let us face it. Teams are here to stay. But there is another aspect that needs to be considered, the aspect that most team advocates dread to consider: *the problems faced by the organization when trying to implement the team concept.* In 1969, Zimbardo and Ebbeson wrote that Humankind had the necessary intelligence to use the technical competence, the resources and other essential components to fulfill the needs of our Humankind. But we had not fully mastered the ability to work together in an effective and efficient manner (Zimbardo & Ebbeson, 1969).[1] This was in 1969. It is still true today. As long as one considers implementing teams, then the problems, which are part and parcel of the team process, cannot be denied. If one resorts to this ostrich syndrome[2], then team implementation will prove to be both frustrating and ineffective to the organization.

The remedy is not to deny and hide away from these problems, but to realize that they *do exist* and that they need to be considered when dealing with any team-related issues.

Autocracy in Democracy

This great nation was founded on the empowered roots of democracy. The concept of freedom was the luring element that attracted immigrants from the "less democratic" nations to the United States, especially at the turn of the century. And for the most part, democracy was the practice throughout the whole nation, *except in the then flourishing industries*. Management was still controlling the workforce with an iron hand. The overwhelming reasoning for this unique paradox was the claim that Management was meant to be the "ruling class" and that the others were destined to be the "class to be ruled." Management hid behind the theory of *Protestant Ethic* to perpetuate this practice. Even workers, for the most part, reasoned that they would be rewarded in the after-life if they performed their earthly duties (i.e., as workers controlled by the management) without complaint.

Then came the concept of Scientific Management. Frederick Taylor proposed that efficiency within the organization might be attained when the workload was divided into standardized tasks which the workers can then perform in a simple and repetitive fashion.[3] Whether intended by Taylor or not, this concept was quickly adopted by the management to further alienate the workers from itself. The workers were expected to "check their brains at the gates" when they entered the factories. Management got cocky and crushed any attempt by workers to make improvements for themselves. Tom Peters (1987), in his book *Thriving On Chaos*, had an excellent illustration of this attitude. After a strike in 1946,

---

[1] Zimbardo, P. & Ebbeson, E., (1969), *Influencing Attitudes and Changing Behavior*, Reading, MA: Addison-Wesley.

[2] Ostrich syndrome--When faced with danger, an ostrich believes that the danger disappears when it hides its head in the ground. This is from the misconstrued conception that if it cannot see the danger, then the danger does not exist.

[3] Taylor, Frederick (1947), *Principles of Scientific Management*, New York: Harper & Row.

BEST COPY AVAILABLE

Lemuel Bouleware, the GE Industrial Relations Executive commented to top management said"... *somewhere, somehow, the employees got the idea that they were in the driver's seat. That they had control in their hands. This is an attitude, gentlemen, that must be reversed. This is fantasy that must be eradicated.*"[4]

Scientific management proved to be beneficial to industry in one aspect of the American society. Most of the employees working at the various factories were immigrants who were still having problems with the English language. Breaking down their tasks into manageable forms was beneficial to them.[5] But the disadvantages from following this method proved to be overwhelmingly disastrous to the workers.

The power of the management was solidified and reinforced by the scientific management process. Power is a *contagious* element. Once an individual has tasted the wonders of power, it would be difficult for that individual to start sharing it. This power monopoly sets forth the establishment of a hierarchical system. This hierarchical system has been ingrained in our society, and we still are subject to its effect in contemporary times. If one were to say, "I'm first, you're ...", the unconscious response would be "second." Consequently, "I win, you ..." and "If I get gold, you get ..." will be responded to by "lose" and "silver" respectively.

Now, how can we try to implement team concept in an environment that still worships power? It will be like a salmon trying to swim upstream—in Niagara Falls!

Pack Rat Mentality

Rick Maurer (1992) in his book *Caught in the Middle* talks about the "Pack Rat Mentality" that still persists with the management crew.[6] Just like a pack rat which drops the present object it is holding for a newer and shinier one that comes its way, management does this 'dropping and picking up of new theories game with its management philosophies. Thus, management has moved from Taylor's *Scientific Management* to McGregor's *Theory X and Theory Y* to Ouchi's *Theory* Z to Peter's and Waterman's *Management By Wandering Around* to Zenger-Miller's *Team Concept.*

Now, what is so gravely wrong with this? After all, is not management an evolutionary process? Doesn't management have to change with the changing times? Isn't Managerial Darwinism valid? Yes, it is valid. The problem with the *Pack Rat Mentality*, however, is that not enough time and effort will be given to the management philosophy at hand before it is to be dumped for another that comes along the way. In other words, the team concept may be dumped for another one down the line without much effort and conviction put into its implementation in the first place. And such a move may prove to be disastrous to the team concept since management may claim that the theories behind the team concept do not hold any validity since they did not work, when in actual fact not enough time had been devoted to the practice of these theories. Always remember that *wrong* implementation is much worse than *no* implementation at all.

---

[4] Excerpt from Peters, Tom (1987), *Thriving On Chaos: Handbook for a Management Revolution*, New York: Harper & Row, p. 343.

[5] Lawler III, Edward E. (1986), *High-Involvement Management: Participative Strategies for Improving Organizational Performance*, San Francisco: Jossey-Bass.

[6] Maurer, Rick (1992), *Caught In the Middle - A Leadership Guide for Partnership in the Workplace*, Cambridge: Productivity Press, p. 15

Eggs To Esteem

During one of the Christmas breaks, I had the opportunity of working in a major food processing plant. One of the hats I was wearing during my part-time stint there was that of a sanitation crew member cleaning trucks which had been hauling hogs. While busy on the job, I became curious as to what would motivate someone to do such a job day and night.

During one of the breaks, I had my chance of asking the other "old-timers" about what motivated them to do this tedious job. One of them said that "it put bacon and eggs on his breakfast table." Another claimed that "it is nice to work with kinfolks." And a real old-timer slowly rambled,"if not for me, he ain't gonna have bacon on his breakfast table," pointing to the first individual who answered my question. I realized a pattern in the claims stated above, mainly in the form of the different levels in Maslow's hierarchy of needs.[7] The first individual was motivated by his basic survival need (food). The second individual was motivated by his urge for social need (near his kinfolks). The last individual viewed his job as a means of satisfying his esteem needs. And all these differences have been observed in just one kind of job—washing trucks. Imagine the expansion in the scope of the motivational factors when several jobs, as in the case of teams, are involved.

But there is another important component of the motivational factors that may affect the implementation of groups in organizations. One of the benefits of team formulation is its role as a means for achieving one's own personal goals (needs).[8] Yet another important component is that the motivation and interest to work in groups or teams is greatly affected by the individual's perception of his/her work.[9] *If the individual views work as toil and labor, then s/he is not proneto work in teams.* Thus, the individual in the above illustration who is just concerned about putting bacon and eggs on his breakfast table may not be interested and motivated to work in teams.

The individual who views work as habit or social prescription, as in the case of the individual who likes to work near his kinfolks, may be interested in forming teams. But there is a catch here. Though they may be interested in forming teams to alleviate their dissatisfaction, they are not motivated to do better when they are grouped into teams.

Those who view work as status and power, as in the case of the individual who uses the job to reinforce his esteem, may be facilitated easily to be in teams. However, the success of the teams depends on shared responsibility and the delegation of authority. For this to occur, commitment from *all* members, no matter what their motivational needs may be, must be evident.

Oh ... Oh ... The Rungs are Missing!

With the implementation of teams in organizations there is going to be a flattening of the hierarchy, as the management gurus call it. This is going to be the wave of the future. Tom Peters, (1992) in his book *Liberation Management*, reinforces this concept of the flattening hierarchy.[10] He even mentions the phasing out of the term 'hierarchy' and the emergence of the concept of 'pecking order.'

---

[7] Maslow, Abraham H. (1954), *Motivation and Personality*, New York: Harper and Row

[8] Aubrey II, Charles A. and Felkins, Patricia K. (1988), *Teamwork: Involving People in Quality and Productivity Improvement*, Milwaukee: Quality Press, P 2

[9] Leach, John J., and Chakris, B.J. (1985), *Rusting Out in America (ROIA) Studies*, Chicago, IL: B.J. Chakris Corporation

Flattening of the hierarchy may prove to be a double-edged knife. On the one hand, it seems to signify that the gap between the management and the front-line employees is narrowing, and that the empowerment factor at the front-line is increasing. That is the ultimate goal of the team concept—for the team members to make better decisions on their own without the hindrance of not having the power to implement these decisions. This is the 'good' edge of the knife.

Now there is another less appealing edge to the knife. This is the side that cuts out the jobs of middle management. With the implementation of teams in organizations there is one overwhelming threat that seems to be apparent, especially to the middle management. The teams seem to do away with the middle management level. And this has caused certain frustration and sabotage from the middle management level. Managers seem to be having problems coping with employees who wanted more empowerment.[11] Sometimes, management has resorted to unusual practices of reinforcing the team concept. Rosabeth Moss Kanter (1983), in her book *The Change Masters* , talks about how management practices *participation-by-command* when the "top orders the middle to do for the bottom."[12] Middle management, obviously, is threatened by this phenomenon. It perceives that it will be slitting its own throat by carrying out this task. In *Empowered Teams*, there is an illustration when supervisors were called in by top management and told that the team concept was going to be implemented and that their jobs will be phased out. Before the supervisors had the opportunity to recover from this disastrous news, they were then instructed by the same management to give support to the team implementation (Wellins; Byham; and Wilson, 1991).[13]

Is there really a flattening of the hierarchical pyramid in the first place (Figure 1)? Or is it just the same pyramid without the middle portion (Figure 2)? The most likely scenario in most of today's organizations, which seem to prophesize the team concept and the flattening of the hierarchical pyramid, would be that which corresponds with Figure 2.

Now what is so different about Figure 2? Not much from the traditional approach. In fact, it gets worse. Without the middle management level, there is no opportunity for the first-line employees to move up. Thus, the rungs on the promotional ladder have been greatly reduced. Given the new situation, it will be difficult for the interviewer to convince the potential employee that s/he has the great opportunity to move up in the career ladder if they do a good job. The key question in the potential employee's mind is—*Move up to where?* They have to do an excellent job to be promoted to the next level, which just happens to be the top management level! This is especially so when there is no provision made to have some sort of reward or alternative promotional techniques for individuals who deserve to be moved up the career ladder.

---

[10] Peters, Tom (1992), *Liberation Management - Necessary Disorganization for the Nanosecond Nineties*, New York: Alfred A. Knopf.

[11] Levine, Herminezagat (Jan 1986), The Squeeze on Middle Management, *Personnel*,Vol: 63, No: 1, pp. 62 - 69.

[12] Kanter, Rosabeth Moss (1983), *The Change Masters: Innovation for Productivity in the American Corporation*, New York: Simon and Schuster.
13

[13] Wellins, Richard S., Byham, William C., and Wilson, Jeanne M. (1991), *Empowered team--Creating Self-Directed Work Groups That Improve Quality, Productivity, and Participation*, San Francisco: Jossey-Bass Publishers, p. 233.

From the discussion above, it almost seems that there is no flattening of the hierarchy without the axing out of middle management. But that is not necessary. There may be axing out of the traditional supervisor's, role but the coach's or the facilitator's role may be incorporated into the organization and the team concept. But conscious steps have to be taken by management. And this is lacking at the present time.

THE DESIRED AND ACTUAL RESULT OF DOWNSIZING

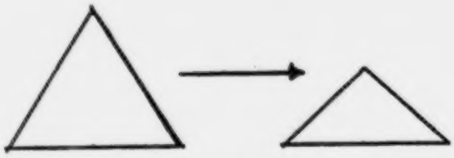


Figure 1
The Desired Result ...

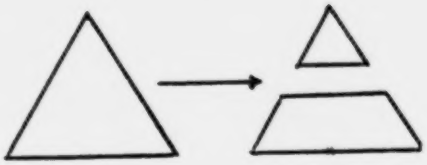


Figure 2
The Actual Result ...

Mass Paradigm Paralysis[14]

When groups were hailed as great assets to the organizations, several advantages of the group decision-making process were greatly emphasized. *Brainstorming, the synergy concept,* and buzz words like *think tank* became the crusading concepts for the implementation of participative decision-making. Variety of ideas will be generated from the participative decision-making. And this variety is what is needed in an ever-changing world. So hailed the supporters of participative decision-making.

But there was another storm brewing in the teamwork jungle. And it was duly noted by Irving Janis (1972) in his book *Groupthink.*[15] He noted that individuals grouped as a team begin to think almost alike, thus losing the variety advantage (which was ironically hailed as one of the greatest advantages of group decision-making in the first place). Groups that have worked together closely have been guilty of groupthink. Janis (1972) rightfully points out the *Bay of Pigs* and *Watergate* among other interesting illustrations. In more recent times, the *Waco* incident has been branded as a folly resulting from groupthink.

Teams are groups. And as such, teams are proned to all the dangers of groupthink. Rosabeth Moss Kanter (1983) promptly highlighted that when a group works too well, becomes too engrossed with only the activities within the group, then the other departments and activities of the organization are ignored.[16] There is *suboptimization*, which is when a group optimizes its own subgoals but loses sight of the overall organizational picture, when there is too much team spirit. Doesn't this strike a chord? Yes, these are the same symptoms of the organization caught up in the "blind-men-and-the-elephant" syndrome.[17]

---

[14] Based on concepts developed by Barker, Joel (1992), *Future Edge: Discovering the New Paradigms of Success*, New York: W. Morrow.

[15] Janis, Irving L. (1972), *Groupthink: Psychological Studies of Policy Decisions and Fiascoes*, Boston: Houghton Mifflin Company.

[16] Kanter, Rosabeth Moss (1983), *Change Masters: Innovation for Productivity in the American Corporation*, New York: Simon & Schuster.

[17]

BEST COPY AVAILABLE

This is a paradox that needs to be constantly checked for. The following diagram shows the difference between *groupthinking* and a *thinking group*.

DIFFERENCES BETWEEN GROUPTHINKING AND A THINKING GROUP

GROUPTHINKING	THINKING GROUP
1.There is an *illusion of invulnerability*. There is excessive optimism and risk taking	1.There is *constant vigilance for invulnerability*. There is careful consideration of factors before risk taking.
2.There are *rationalizations* by the members of the group to discount warnings.	2.There is '*practicality testing*' by the members of the group to consider warnings.
3.There is an unquestioned belief in the group's *inherent morality*. The group ignores questionable ethical or moral issues or stances.	3.There is *constant check on the morality practices* within and without the group. External factors are constantly surveyed to ensure that the morality factor is not jeopardized.
4.Those who oppose the group are *stereotyped* as evil, weak, and stupid.	4.Opposition is seen as an *healthy addition* to the group's functions. Stereotyping is greatly discouraged.
5.There is *direct pressure* on any member who questions the stereotypes. Loyal members don't question the direction in which the group seems to be heading.	5.Any member questioning the activities of the group is *not ostracized*. Members make frequent checks on the direction in which the group seems to be heading.
6.There is *self-censorship* of any deviation from the apparent group consensus.	6.There is *self-questioning* on the practicality and morality of the group consensus.
7. There is the *illusion* of unanimity. Silence is interpreted as consent.	7. There is *confirmation* of unanimity. Silence is interpreted as doubt.
8.There is self-appointed *mindguards* who protect the group from adverse information.	8.There are self-appointed *devil's advocates* who question the group on the information being discussed.

The concept of groupthinking was adapted from Irving L. Janis, Victims of Groupthink, Houghton Mifflin, Boston, 1972, pp .197 - 198.

I'm Free... I'm Free... But What Do I Do Now?

As discussed in an earlier component, Tom Peters cites the changing of the traditional hierarchical structure to one which nurtures the "pecking order" (Peters, 1992).[18] But there is an implication here. Pecking order or not, there is some structure. And that is something that the psychologists conclude is the result of social comparison. There is a tendency for individuals to compare themselves with others. After this

---

[17] This is based on the four blind men who were trying to figure out what the elephant looked like. The first blind man who felt the elephant's ears declared that the elephant must look like a huge fan. Another who felt the elephant's leg disagreed and claimed that the elephant looked like a tree trunk. The third blind man, who was groping his way around the beast's body, exclaimed that it resembled a wall. The last blind man who was feeling the elephant's tail shouted that the elephant must look like a moving vine. Every one of the blind men was right--only according to his own perception.

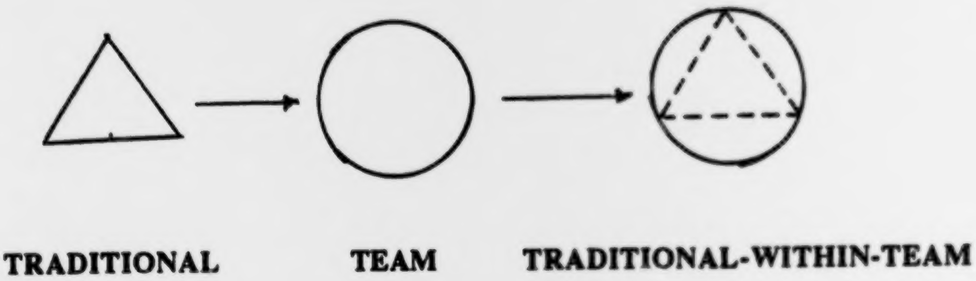
[18] Peters, Tom (1992), *Liberation Management - Necessary Disorganization for the Nanosecond Nineties*, New York: Alfred A. Knopf.

comparison stage, they arbitrarily placed themselves and the others into imaginary slots so that they can come up with ....yes, you got it!.... a hierarchy!

If we looked at instances of survivors marooned on an island, of airline crashes in the mountains and jungles, and others and if we studied their ordeal and structure that kept them going, we would realize that they had formed some form of hierarchy within their surviving group. A hierarchy was set up even though there was no external influence to create one. Rosabeth Moss Kanter termed this the "seductiveness of hierarchy."[19] The result is, that no matter how teams may be described there is a cloning of the hierarchical structure, only now it is *within* the group rather than at the organizational level.

Erich Fromm (1941), in his book *Escape From Freedom,* theorized that when individuals were faced with uncertainties they resort to totalitarianism.[20] He cited the instance of millions of Germans faced with the economic and social problems at that time tolerating and following the atrocities of Nazism like common sheep because the movement promised some structure and plan for progress. An analogy may be made with the employees working in our organizations. When management introduces the new concept of teamwork into the workplace, the employees are faced with uncertainties. And this leads to the emergence of some sort of a hierarchical structure within the teams. The figure that follows clearly highlights this phenomenon, and is an extension of Rosabeth Moss Kanter's "seductiveness of hierarchy" concept.[21] In this instance, *Managerial Darwinism* has come in full circle. Hierarchy has re-entered the organizational realm, except that it is a smaller one.

THE TRANSFORMATION FROM TRADITIONAL TO TEAM TO "TRADITIONAL-WITHIN-TEAM" STRUCTURE



It's Supposed To Be Leap Frog—Not Quantum Leap!

The building of the team concept is an evolutionary process. It is not a program that can be implemented overnight. In *Leading Teams* the transition is seen as being made from *Traditional Leadership* to *Participative Leadership* and ultimately to *Team Leadership*

---

[19] Kanter, Rosabeth Moss (1983), *Change Masters - Innovation for Productivity in the American Corporation*, New York: Simon & Schuster

[20] Fromm, Erich (1941), *Escape From Freedom*, New York: Holt, Rinehart, & Winston

[21] Kanter, Rosabeth Moss (1983), *Change Masters: Innovation for Productivity in the American Corporation*, New York: Simon and Schuster

(Zenger; Musselwhite; Hurson; and Perrin, 1994).[22] In fact, Harper and Harper (1991) stated that it takes from 2 - 4 years before a self-directed work team can be effectively established.[23] But most of the organizations in contemporary times do not realize the impact and need for this evolutionary process. They want a transition from traditional hierarchical structure straight to a fluid team concept. And with that attitude in mind, the managers are abdicating their responsibilities in the name of delegation (Kanter, 1983).[24]

Even organizations that may be fortunately endowed with individuals who can work in groups may fall into this 'hyper speed' trap. Danny Miller, in his book *Icarus Paradox*, describes how the organization's greatest asset may lead to its ultimate downfall.[25] He uses the illustration of the Greek mythological subject Icarus to highlight this problem. Icarus was granted wings to fly but warned not to fly too high. Unfortunately, Icarus got carried away and started flying higher and higher. The wax holding the wings to him started melting. And we all know what happened after that. Just like instances in the *Icarus Paradox*, the organization well endowed with team spirited individuals may be forced towards dooms town just because the transition to a team environment was carried out too rapiedly.

Winding Down

The discussion in this paper seems to paint a gloomy picture of the team concept. But that is not the case. The team concept is here to stay. There is no denying it. An organization's survival, especially in the near future, may depend entirely on it. But it is not wise to assume that the road to team implementation is smooth.

The mechanics of teamwork are like a monkey wrench. It may be used to fix a better team, or it may be thrown into the team clockwork to create problems. It is not the fault of the monkey wrench. It depends on how one uses it!

---

[22] Zenger, John H; Musselwhite, Ed; Hurson, Kathleen; and Perrin, Craig. (1994), *Leading Teams - Mastering the New Role*, IL: Business One Irwin.

[23] Harper, Bob; and Harper, Ann (1991), *Succeeding As A Self-Directed Work Team--20 Important Questions Answered*, New York: MW Corporation, p. 44

[24] Kanter, Rosabeth Moss (1983), Change Masters: Innovation for Productivity in the American Corporation, New York: Simon & Schuster.

[25] Miller, Danny (1990), *The Icarus Paradox: How Exceptional Companies Bring About Their Own Downfall*, New York: Harper Business .

Multiculturalism: Curriculum and Practice

PAUL DEAN, YVONNE EIXMANN, CATHY HAMILTON, DEANA HENRY,
CHRISTI SHERROD, and DEVA SYAM
Texas A&M University

Introduction

Multiculturalism has become a pervasive element of our everyday lives primarily due to improved communication technology and increased diversity through changing demographics. A shift in perspectives seems to have occurred, moving us from infrequent, distant interaction to a world characterized by ethnic diversity, cultural pluralism and increasing interdependence.

Although advanced communication has facilitated increased exposure to a variety of cultures, misinterpretation can easily occur. This misunderstanding can be as broad and basic as determining the accepted definition of multiculturalism: from the traditional view through the critical movement we see today. Increasing diversity requires a recognition of various cultures within economic, social, cultural and political boundaries.

Multiculturalism impacts all facets of life. Business organizations now seek managers with the ability to function across a broad spectrum of cultures. Training for a specific overseas assignment is no longer adequate. Human resource management requires a strategy that incorporates communication and sophisticated negotiations skills for all employees. All parties must possess the flexibility to adjust during the process and deal with the ambiguity of not always knowing the appropriate response.

To effectively meet these challenges, we must re-examine our goals in education. Multiculturalism cannot be considered an extracurricular problem but one that must be integrated throughout global education. Knowledge, skills and attitudes taught must be grounded in respect for individuals and their diversity.

This paper will explore definitions of multiculturalism, demographics, participation, and communication as they are applied in business or social organizational settings. These challenges can only be met through evaluating and transforming educational processes.

Definitions of Multiculturalism

Defining multiculturalism is problematic. Various perspectives, contexts and ideologies result in widely diverse definitions. We will look at three definitions which are given many names. One is called traditional, corporate, conservative or demagogic; a second liberal or consensual; and a third resistance or critical multiculturalism.

Traditional multiculturalism is represented by the popular press and media, according to some observers. From this perspective multiculturalism threatens the educational system's "traditional task of defending and transmitting an authentic national history, a uniform standard of cultural literacy, and a singular national identity for all citizens to embrace" (Giroux, p 1). Writers have coined the phrase 'common culture' to describe this unified view. "Cultural differences in this viewpoint are strategically contained if not assimilated, to the overarching imperatives and privileges of ... common culture." (Giroux, p 2) This is a 'common culture' based on Western tradition, because the aesthetic, ethical and rational systems of the Greeks and Judeo-Christians to this day deliver us from "chaos and barbarism" (Giroux, p 2). Criticisms that Western traditions support elitist power and privilege and market domination at the expense of human values are rejected by traditionalists. There is no tie between multiculturalism and inequality or injustice. Giroux believes that traditionalists rely on "a foundation of moral truth based on orthodoxy ... an external, definable, and transcendent authority" (p 4). For this reason Parekh calls traditional multiculturalism "demagogic" for its "refusal of cultural hybridity and differences," promoting a "dangerous type of fundamentalism." (Giroux, p. 4).

Estrada and McLaren use corporate or conservative to describe this multiculturalism which:

> Fails to interrogate high-status knowledge, knowledge that is deemed of most value in White, middle-class America and to which the educational system is geared (it fails to question the interests that such knowledge serves). It ignores the ways in which dominant regimes of discourse and social and cultural practices are implicated in global dominance and inscribed in racist, classist, sexist, and homophobic assumptions. (Estrada, p 31)

The second perspective is liberal multiculturalism. This form of multiculturalism might be tied to the 'melting pot' images of our country with regard to the assimilation of immigrants. Poster defines liberal multiculturalism as "devoting study to African-Americans, for example, along with Italian, Jewish, and Irish immigrants" (p 576). A pluralist consensus receives any culture as long as it is melted into the pot of "modern democracy, capitalism and urbanism" (Poster, p 576). Some see the liberals limiting multiculturalism to adding a couple of books by Latin and African Americans to lists of 'great books' (Estrada, p 32).

A third multiculturalism is critical or resistance. It may be seen as an outgrowth of two modern African American educational philosophers, DuBois and Houston (Dunn, p 33). This perspective is also associated with postmodern philosophy, particularly the "celebration of difference" which incorporates the voices of many cultures and viewpoints as authentic (Poster, p 577). "The suspicion of the Enlightenment posture of universal rationality appears to emerge with equal, parallel ferocity among postmodernists and multiculturalists." (Poster, p 577)

These multiculturalists view education as incomplete without action. Dunn tied this view to Houston and DuBois' concerns that education result in social transformation and greater social justice (p 33). Giroux envisions action as the practice of "civic courage, critical citizenship, and democratic struggle" (p 7). Multiculturalism is a means "... to think and act otherwise, to imagine beyond the given, and to critically embrace their identities as a source of agency and possibility" (Giroux, p 11).

Action may be a response to multiculturalism's fundamentally analytical nature. Critical and ethical reflection and dialogue between cultures, exposing power, exploitation, racism and classism in multiethnic situations are indispensable to multiculturalism (McCreery, p 103 and Giroux, pp 6-7). "Multiculturalism without a transformative political agenda can just be another form of accommodation to the larger social order" (Estrada, p 31).

Space is another theme in the critical definition of multiculturalism. Estrada and McLaren write a space must be created where multicultural voices may dialogue so humans are seen as subjects and not objects (pp 31-32). Parekh envisions public space where all cultural communities may interact (Giroux, p 7).

These interpretations of multiculturalism are radically different yet there seems to be a consensus that our new transnational business world and demographic trends in the United States demand multiculturalism. As the other sections of our paper exemplify, the operational meanings of multiculturalism in various institutions guide their actions.

Demographic Changes and Minority Participation

"Not only is America graying, the skin color of America is also changing" (Briscoe & Ross, 1989) is an apt phrase that captures the recent trends in the demographic characteristics of U.S. population. The increasing ethnic and cultural diversity of the population is identified by Nasbitt and Aberdene(1990) as one of the megatrends for the twenty-first century. This general trend is reflected in the growing diversity of the labor force as well as in the enrollment records of the school systems. The civilian work force grew by 18 percent in the 1980s, the number of white workers grew 12 percent while minority workers increased by 45 percent. The number of women grew by 27 percent in the work force as compared to 12 percent by men. If current trends in immigration and birth rates persist, the Hispanic population would have further increased an estimated 21%, the Asian presence a little more than 22%, Blacks almost 12%, and Whites a little more than 2% when the 20th century ends (Henry, 1990). The 1990 census found that 14 percent of school children (between the age of 5 and 17), speak a language other than English at home and 5 percent of the total enrollment are classified as having "limited English proficiency" according to a 1990 Department of Education survey. This is an important statistic because language barrier is not only a problem educators face but also a critical factor in relation to multicultural groups: intragroup communication is severely hampered when minority members are not fluent in English (the dominant language) and greatly contributes to the lack of participation of minority members in group processes.

However, this increasing diversity in the work force is somewhat skewed when the distribution of persons by gender and minority status across all major occupational categories is considered. White men are 43 percent of the work force, 56 percent of officials and managers, and 76 percent of craft workers. These tend to be highest-paying white and blue collar jobs. Minority men on the other hand, are represented among operatives and laborers. Women dominate lower paying clerical and service jobs. Only technical workers are closely represented by the average gender and minority distribution.

Business and industry is having to cope more and more with multicultural groups in work setting. In spite of increasing minority presence in public life, there is a paucity of empirical studies concerning the dynamics of multicultural groups (Cox, 1990). Research has consistently shown the lack of participation of minority members in a mixed group (Kirchmeyer & Cohen, 1992). The most prominent trends of minority participation in multicultural task groups were reported/confirmed by Kirchmeyer (1993) in a study conducted with 164 business school students. She separated a number of personal variables including minority status and tried to see the correlation between participation and these variables. The study was designed to answer if group attachment, communication competence, sex-role orientations , and motives of minorities differed from those of non-minorities, and if these personal variables could predict the level of contribution to group decision making, and whether they serve as better predictors of contribution than minority status alone. Her findings can be summarized as follows:

1. Correlation between minority status and contribution to decision making is high and contribution of minority members is considerably less than non-minority members. This imbalance in contribution is unfortunate considering a multicultural perspective has always more to offer than an ethnocentric approach to any issue.

2. Personal characteristics other than racial and ethnic identity are also an important predictor of contribution level between minority and non-minority members. Low communication competence, low scores on masculinity, and high scores on femininity were associated with both minority status and low contribution. "Masculinity represents an instrumental orientation with a cognitive focus on getting the job done and greater assertiveness, whereas femininity represent greater concern for others and greater submissiveness."
3. Minority status can differentially affect personal characteristics and performance in groups. The association between a strong desire to

> work well with others and a high level of contribution held true for minority members *only* whereas competition needs coupled with a high level of contribution was true for non-minority members only. Kirchmeyer concludes "Perhaps pursuing relationship needs is an expected and accepted part of the minority role, whereas pursuing competition needs is not. Seeking to outperform others may remain an accepted part only of the majority role" (Kirchmeyer, 1993).

The purpose of this study was to provide some guidelines to the facilitator of multicultural task groups in order to enable greater minority participation. As a block, the personal variables served as a stronger predictor of contribution to group decision making than did minority status, which indicates that personal characteristics are important for our understanding of the performance imbalance between minority and majority group members. For facilitators, it implies that greater attention should be focused on building communication skills of non-minority members, destroying damaging stereotypes of minorities in the group etc.

Heterogeneous groups tend to have greater problem solving skills than homogeneous groups (Hoffman, Haburg, Maier, 1962). They have suggested that "differences among group members promote effective problem solving: when opposing viewpoints are brought together in a free exchange, the resulting conflict may be resolved by the creation of a new solution which either reorganizes or incorporates the different viewpoints". The contribution of minorities has been consistently less than non-minority members in multicultural groups. This remains the central dilemma in this matter, multicultural groups are more resourceful in problem solving situations because of the differing perspective of non-minority members; yet their lack of contribution in group decision making negates the value of their presence. In order to realize the creative potential of diversity, multicultural groups need to overcome the interpersonal problems and communication (Ruhe & Eatman, 1977).

Kirchmeyer and Collins (1992) suggested the practice of *'constructive conflict'* as an useful approach to ensure minority participation. The authors define constructive conflict as "the searching out (of) a variety of perspectives, openly discussing differences, and carefully critiquing assumptions and alternatives" as opposed to *competitive conflict* which encourages formalized debate procedures in a win-lose situation. Typically ethnic minorities in the North American work setting feel less committed to group decision making than the non-minority members, as has been reported in earlier research. Kirchmeyer and Collins found significant correlation between minority status and commitment to group decisions, which certainly is a matter of concern to organizational functioning. The joint effect of constructive conflict and minority status on contribution to decision supported the effectiveness of constructive conflict in multicultural groups. The relationship between the use of constructive conflict and a member's contribution was positive if he or she was a minority and negative if he or she was a non-minority. The more extensive a group's use of constructive conflict, the more committed the members were to the group and to the decision. This study has important implications for multicultural groups because the practice of constructive conflict is an important tool for facilitators in harnessing participation from the minority members. This in turn help realize the creative potential of diverse groups by allowing the presence of a variety of opinions and approaches in a multicultural environment. For multicultural groups, communication difficulties can only be overcome in an atmosphere of mutual trust, understanding and respect (Thomas, 1976).

The Facilitation of Multicultural Communication

Defining multiculturalism is a difficult task. But at the heart of multiculturalism is communication. This section examines various facets of communication across cultural boundaries. There is a variety of ways this can be expressed, as the many differing terms used in this paper illustrates. The end result however, is that regardless of the context, whether a classroom, boardroom or workroom, effective communication is a must, especially when differing cultures are present. How can we adapt to increasing diversity and multiculturalism through effective communications?

Two interchangeable terms are often used to describe communication across cultural boundaries: cross-cultural communication and intercultural communication. At times though, cross-cultural communication can refer to comparisons across cultures as opposed to intercultural communication which describes communicating across cultural boundaries. The facilitating of this communication across cultural boundaries is what this section addresses.

Intercultural communication occurs whenever a message provider is a member of one cultural group and a message receiver is a member of another cultural group (Porter & Samovar, 1982). Also included would be ethnic groups as a form of cultural groups (Gudykunst, Ting-Toomey & Wiseman, 1991).

One misconception, however, often arises from such a definition: that knowing the language means knowing the culture. This fails to understand that cultural aspects exist beyond the lexical to include the many dimensions of nonverbal communication. Knowing the language only permits effective communication with the written word; person to person communication (i.e. intercultural communication), requires a deeper understanding of the nonverbal aspects of a culture.

There are two ways that intercultural communication can be facilitated: a culture-general approach or a culture-specific approach. Gudyknust et al, supports the culture-general approach which states that the focus is "on the general factors that influence communication between people from different cultures and/or ethnic groups" (pp. 273 - 274, 1991). Such an approach would look to many different disciplines as part of its curriculum to gain insight into cultural patterns. Anthropology, psychology, business, comparative sociology, and linguistics are examples of just a few of the disciplines which reveal cultural patterns.

The second approach, the culture-specific approach, on the other hand, would focus in on the language, history, and cultural patterns of a specific cultural group. Elements which could be included in this would be an understanding of the cognitive processes, case studies, and/or interactions with members of the other culture (Hemphill, 1992).

Broome (1991) gives an example of the culture-specific approach. His relational view of empathy is not empathy in its traditional sense, but allows the establishing of an appropriate environment for moving toward understanding, not just a sense of "walking in the other person's shoes." In fact, according to Broome's view, what emerges is a third culture unique to the two individuals who are communicating.

The idea is to know as much about this particular culture as possible "to determine how people encode messages, the meanings they have for messages, and the conditions and circumstances under which various messages may or may not be sent, noticed, or interpreted" (Porter & Samovar 1982).

The culture-general approach is advocated when a general sensitivity to cultural differences is desired. Such an approach would enable the person through general principles learned to be aware of the potential ways that different cultures perceive the world and communicate within that world. The purpose of the culture-general approach then is to provide a framework for understanding differing cultures.

BEST COPY AVAILABLE

On the other hand, the culture-specific approach would be most useful when a person is crossing a specific cultural boundary. This would be most useful for representatives of business, industry, and government who travel overseas or deal with immigrant and/or ethnic groups within the dominate culture. The goal of such an approach "is to enable adult learners to develop bicultural, code-switching abilities, and to choose when to use them" (Hemphill, 1992, p. 12).

Effective intercultural communication can be facilitated. The key is understanding the context of the communication and seeking proper understanding of the dynamics within that culture including both verbal and nonverbal communication.

Multiculturalism in the Organization

Multiculturalism in organizations is becoming more pervasive. Organizations are becoming increasingly diverse in terms of gender, race, ethnicity, and nationality. As we evolve into the twenty-first century, a combination of workforce demographic trends and increasing globalization of business has made the management of cultural differences a critical issue (Cox, 1991).

Even organizations that are not competing internationally today are aware of the increasing diversity in the work force. Changing demographics, such as more women and minorities, create a multicultural environment without leaving the boundaries of the United States. Gordon (1964), in his societal model, suggests several dimensions along which the integration of persons from different ethnic backgrounds into a host society should be analyzed. Acculturation is the adaptation process between two groups for which he offers three alternatives: a unilateral process in which the minority culture adopts the norms and values of the dominant group in the organization (assimilation); an integration of the norms where each group adopts some norms of the other (pluralism); and the situation where there is little adaptation on either side (cultural separatism).

Prior to much of the civil rights legislation and affirmative action, cultural separatism was prevalent, e.g. segregated schools and restaurants. As minorities initially became assimilated into organizations, they were expected to conform to the majority culture. However, to become a multicultural organization, the organization must truly value the diversity and become pluralistic (Gordon, 1964). Failure to capitalize on the opportunities of workforce diversity is a gross under-utilization of human resources and represents an unaffordable economic cost (Cox, 1991).

Since World War II, organizations throughout the world have progressed toward global operations. Initially, as the only intact economic power, the United States focused on domestic operations. As that competitive edge has shifted, however, this country has evolved through international and multinational stages, and must now adjust to a transnational perspective to promote multiculturalism. In the international mode, outside countries are seen primarily as markets for products, i.e. exports. Multinational firms establish operations in foreign locations, but most of these are in a subordinate position in the organizational hierarchy, i.e. a subsidiary. Only in recent years have organizations recognized the importance of transnational human resource management.

The transnational organization requires a transnational strategy of operation. Such a strategy must be complemented by a transnational human resource system that includes transnationally competent managers. These managers have a different role to play than in earlier international or multinational strategies. No longer is the focus on a single country involved in a headquarters/subsidiary relationship. The new manager must learn about many cultures and work with them simultaneously. Foreign colleagues have to be treated as equals with no cultural dominance or subordination (Adler and Bartholomew, 1992).

The focus on managerial training has been for temporary assignments in a foreign country, but transnational managers must adapt not only while on foreign assignment but on a daily basis. They need both culturally specific knowledge and adaptation skills and the ability to acquire a worldwide perspective and integrate world wide diversity, developing a "cultural synergy." Expatriates returning from overseas have often found themselves in a decreasing career development mode upon repatriation. Organizations have not recognized the "value-added" of overseas assignments (Oddou and Mendenhall, 1991).

The action learning approach has been suggested as an appropriate methodology for development of transformational managers for the global marketplace (Marsick and Cederholm, 1988). By beginning with university level experiences, including programs such as study abroad, action learning helps move managers away from dysfunctional dependencies on safe routines and rules and toward functional interdependencies (Ondrack, 1993). To cope with the transnational organization, today's managers must be provided the programmed knowledge as provided in traditional settings, but they must develop a questioning insight that allows them to function effectively in the multicultural environment (Bartlett and Ghoshal, 1992).

Multicultural Negotiations

Parties involved in business negotiations seek differing objectives, or at least hold dissimilar points of view; otherwise, the need for "negotiation" would not exist (Copeland and Griggs, 1985). Beyond opposing viewpoints and objectives, cultural perspectives come into play. Culture can be the most difficult barrier to cross, especially when one is unprepared and unfamiliar. Moran's and Stripp's (1991) twelve negotiating variables will help define dimensions to consider for cross-cultural differentiation.

The concept of negotiation tends to be recursive in nature, making in necessary to constantly be prepared. Casse (1981) believes to "manage" negotiation effectively both parties must understand what is happening during the negotiation as well as possess the flexibility to adjust during the process so that all objectives are achieved. Moran and Stripp (1991) define negotiations with a cyclical flow chart moving from policy to interaction to deliberation to outcome to policy, etc. Policy defines business interest and courses of action; interaction is the information, offer and counteroffer exchanges; deliberation involves evaluation and reformulation; and outcome gives the final agreement of the parties. These four components characterize the framework for the twelve negotiating variables. By utilizing these twelve variables, negotiators can develop a profile for the party/parties they must bargain with—preparing them for the cultural differences they can anticipate.

BASIC CONCEPT OF NEGOTIATION. Negotiations are driven by differing beliefs, concepts, and attitudes using different styles, but ultimately have a purpose behind them. The purpose for a negotiation begins with a need to make a decision about an action or outcome. To begin with, the negotiating parties do not agree with the outcome of the situation. This usually is a result of their differing beliefs, concepts, and attitudes. It is important for both sides to know their own concept as well as be aware of the other party's concept. If you do not know the basic philosophy of the other country, it is difficult to know what steps to take — you must know the starting point before you can move forward.

SELECTION OF NEGOTIATORS. In different countries, negotiators are selected for different reasons. It is important to know how and why the other party is designated in order to be prepared adequately. This makes it easier to predict behavior and know appropriate behavior for yourself.

ROLE OF INDIVIDUAL ASPIRATIONS. Knowing if the other party has an individual agenda makes negotiation easier. If their motives are purely corporate and loyal, they may be less willing to deal in some areas than if they had a personal agenda.

CONCERN WITH PROTOCOL. Approaching protocol in other countries is an especially delicate task. If a negotiator is not well versed in protocol, they may destroy all progress at the negotiation table with a single social offense such as sitting to the right of a senior business rank instead of to the left in Germany (Axtell, 1985).

BEST COPY AVAILABLE

SIGNIFICANCE OF TYPE OF ISSUE. Type of issues refers to presentation style and attention to detail. If the other party negotiators want specific detail, but you do not provide is, they will not be prepared/willing to negotiate.

COMPLEXITY OF LANGUAGE. Both verbal and non-verbal factors come into play. Different languages can obviously be a barrier, so a negotiator will either need an effective, yet unbiased translator or know the language extremely well. Some languages prefer direct and to the point communication versus lengthy explanations. In the non-verbal realm, emotions and specific body language signals can be offensive.

NATURE OF PERSUASIVE ARGUMENT. The nature of the argument refers to the process of presentation. Most countries function on a logical and concise premise. Others want further proof backed with empirical evidence. Culture plays in here, because the logic for one person may not be understood in the same way by a person from a different culture. This creates difficulty in preparation due to the fact that and effective strategy in one country may never be effective in another (Fisher, 1980). Again, it is important to know what basis the other country/negotiators will be functioning in.

VALUE OF TIME. Knowing the value of time in a culture is essential. Some place great value in time, such as the United States, while others take "as much time as necessary" to assess a situation and make a decision. Awareness of these factors can help in planning a bargaining session.

BASES OF TRUST. In negotiation, Moran and Stripp (1991) show that trust means relying upon the accuracy of your counterparts information. Some negotiators rely on past performance to assess a level of trust while others may count on their intuition. Hard cold facts and proof are required in some countries. Many times it depends on the risk averse factor within a culture.

RISK TAKING PROPENSITY. Some negotiators will do anything just to complete the bargaining process — showing a high risk tolerance in exchange for completion of the task. Other countries/cultures rely heavily on detail in order to minimize risk.

INTERNAL DECISION-MAKING SYSTEM. Many cultures employ a strictly bureaucratic decision making structure. This can create interruption in the negotiation process while retrieving clearance for a settlement. Different cultures may use a team approach giving them the power to make decisions on the spot.

FORM OF SATISFACTORY AGREEMENT. The final agreement product differs from culture to culture. Sometimes a handshake and/or verbal agreement is satisfactory to one party whereas the other party prefers a written agreement. All parties' expectations must be filled before a negotiation is final.

When entering another culture to negotiate, many factors must be considered. If nothing else, an awareness level must be created and constantly recognized throughout the process. These differences can become barriers if not consciously recognized; but when recognized and considered, agreements can be reached.

Goals for Multicultural Education and Implications for Global Curriculum Development

The central ethic of multi-cultural education is respect for persons. In contrast to viewing multiculturalism as an additional subject area within curriculum, multicultural education within a global context is seen as a whole curriculum strategy, integrated in a holistic way across all learning experiences. At the heart of global educational goals are major concerns with social responsibility, cultural diversity and conflict resolution, human rights and justice.

James Lynch (1993) states that the aims of any multicultural education involve interconnectedness between levels of community, national and international goals, and their relation to the complex dimensions of cultural, social/economic and environmental focus

(p. 2). We can use an example from the previous discussion on communication. The use of language demonstrates the necessary interconnectedness with which we must frame our restructuring of education. Within the what Lynch would call the cultural dimension of our community, national and international focus, language should take the form of an intercultural communicative competence. The mother-tongue is taught as a valid system of communication and the national language, if different from the mother-tongue, should be learned as a responsible acknowledgment of the economic interdependence of all citizens. Ever-increasing international interdependence requires a more open and sophisticated channeling of communication that demonstrates mutual respect.

Multicultural education must not be limited to a curriculum movement for marginalized sectors of our society. It is a movement "designed to empower all students to become knowledgeable, caring and active citizens in a deeply troubled and ethnically polarized nation and world" (Banks, 1993).

Banks believes that an examination of the knowledge construction process is an important part of multicultural teaching. "Teachers help students to understand how knowledge is created and how it is influenced by factors of race, ethnicity, gender and social class. A multicultural focus on knowledge construction includes discussion of the ways in which the implicit cultural assumptions, frames of reference, perspectives and biases within a discipline influence the construction of knowledge" (p. 25). By challenging the notion that knowledge is value-free, students begin to encounter an educational methodology and decision-making approach that will encourage reflective, active, morally responsible engagement with the major cultural, social and economic issues of our time.

Lynch argues that a curriculum that is designed to develop the knowledge, skills and attitudes to empower learners for active citizenship in their own community, their nation and the world, must offer a wide range of learning through experiential means. Knowledge alone is insufficient; it is the reflective-decision making made by persons with that knowledge that holds the key to transformation. Emphasis is on the "how" more than the "what" of information. Learners need to develop skills of collecting, organizing interpreting, evaluating and using information and sources of information. They need to learn and practice decision- making skills, rather than merely analyze them, and to be able to apply them to local and community contexts that are relevant to their lives.

In an effort to fulfill the basic ethic of respect for persons, a global curriculum must take on a deliberate, systematic and intentional approach to fostering specific attitudes. These attitudes should foster empathy with other human beings, understanding of human diversity and similarity, and an appreciation for the worthy achievements of all individuals and human groups. Learners can be helped to develop more positive racial attitudes if realistic images of ethnic and racial groups are included in teaching materials in a consistent, natural, and integrated fashion. Involving learners in vicarious experiences and in cooperative learning activities with people of other racial/ethnic/cultural groups has proven effective in combating stereotypes.

One technique Lynch advocates is known as "principle testing." The teaching method incorporates knowledge construction, skills development and attitude change. Integrating numerous techniques, learners participate in an open discussion forum that fosters respect for the legitimate views of others, tolerance in turn-taking in discussions, appeal to rational criteria, reversibility of moral position-taking and consistency of application of moral principles. The principle of dilemmas, which are at the heart of the technique, enlist participants in an acceptance also of democratic process, of rationality in the solution of moral issues and involvement in such techniques as mutuality and reversibility. The knowledge and skills used in the decision-making processes would resemble real-life contexts of relationships within the home, work, community and world. The action learning and constructive conflict models currently used in business management training are two examples of the experiential learning the Lynch advocates.

The data confronts us. Changing demographics, dramatic shifts in the workplace, documented lack of participation by minority members in decision-making processes and the complexity of intercultural communication all point toward the urgency of an education that fosters respect for all persons.

Conclusions

We have explored various facets of multiculturalism. Although we have limited our discussion to several distinct definitions of multiculturalism, multicultural definitions more accurately form a continuum as presented in current literature. We have recognized that developing a world that can adapt to the requirements of living as a multicultural society begins within the educational process and continues throughout the spectrum within which we live, including our work environment.

At this point there are no concise answers, but we must continue to seek explanations and processes for adaptation as our world continues to grow smaller. Although we may have different values, attitudes, and beliefs, and sometimes different skin colors, we all share one categorization: we are all human beings deserving of respect and understanding as we struggle through our lives. Trompenaars describes multiculturalism as a "question of attitude and openness to human variety, not a question of knowledge" (Haggerty, 1993).

Annotated Bibliography

Adler, N.J. and Bartholomew, S. (1992) Managing globally competent people. *Academy of Management Executive*, 6, 3.

Transnational firms need transnational human resource management systems. Changes are needed for individual skills and the frame work used for assessing the global competence of firms' human resource systems.

Axtell, R.E. (1985). A Guide to International Behavior - Do's And Taboos Around the World. New York, NY: John A Wiley and Sons.

Discusses protocol and cultural customs of countries all over the world. It gives preparation tips for visitors to the country including business, dining, language, gift giving, and appropriate attire etiquette.

Banks, James A. 1993. "Multicultural Education: Development, Dimensions, and Challenges. *Phi Delta Kappan*. Sept, pp 22-28.

Banks attacks the myths and misconceptions surrounding multicultural education that have undermined the field's accomplishments in theory, research and curriculum development. He clarifies the complex dimensions of multicultural education and points to possibilities for the future.

Bartlet, C.A., and Ghoshal, A. (1992) What is a global manager? *Harvard Business Review*, 70, 5, 124-132.

Success in today's international climate demands highly specialized yet closely linked groups of global business managers resulting in a transnational organization. A network of specialists rather than a single individual is required.

Bourgois, Philippe I., *Ethnicity at Work: Divided Labor on a Central American Banana Plantation* (Baltimore: Johns Hopkins University Press, 1989) reviewed by David McCreery of Georgia State University in *The Americas: A quarterly Review of Inter-American Cultures* 49:102-3 (July 1992).

"His argument is that an idealist-materialist dichotomy setting up an opposition between 'real' class and 'imagined' ethnicity is false; ethnicity and class cannot be separated, nor is one more real or valid than the other, but in multiethnic situations both may be important pars of the process of exploitation. Nor is racism a tool invented...to divide and mystify the working class. Employers use it, of course, as they do anything that will help them exploit their workers, but ethnicity is absolutely real to the Indians, blacks, and Hispanics...and it must be understood and dealt with at least as seriously as class." (p 103)

Broom, B.J. (1991). Building Shared Meaning: Implications of a Relational Approach to Empathy for Teaching Intercultural Communication. *Communication Education. 40*, 235-249.

Empathy is seen as an important ingredient in intercultural communication. The author introduces a new definition of empathy, called relational empathy. Relational empathy emphasizes the development of a "third culture," which is a culture unique to the two individuals who are communicating. Relation empathy is a basis for building shared meaning.

Copeland, L. & Griggs L. (1985) Going international: How to Make Friends and Deal Effectively in the global Marketplace. New York: Plume Books.

Discussed different negotiating factors to consider when in a different cultural setting. The author examines countries and their protocol as well as how to prepare to enter a culture you are not familiar with.

Cox, T., Jr. (1991) The multicultural organization. *Academy of Management Executive*, 5, 2.

To Capitalize on the benefits of diversity while minimizing the potential costs, leaders are being advised to oversee change processes toward creating "multicultural" organizations. These organizations have specific characteristics that differ from past organizations.

Dunn, Frederick. 1993. "The Educational Philosophies of Washington, DuBois, and Houston: Laying the Foundations for Afrocentrism and Multiculturalism." *Journal of Negro Education* 62:1 pp 24-34.

Discusses positions of three important African American educational philosophers and how their thinking has shaped understandings of the purpose and direction of education: Washington's technical skills goals, DuBois' radical intellectual and critical-skills orientation, and Houston's integrationist position. These philosophies are seen as the foundations for current goals of multicultural and social justice-seeking education.

Estrada, Kelly and McLaren, Peter, 1993. "A Dialogue on Multiculturalism and Democratic Culture." *Educational Researcher*. 22:3, pp 27-33

This is a dialogue between McLaren, the Director of the Center for Educational and Cultural Studies at Miami University, and Estrada, a doctoral student at the University of California, LA. They discuss multiculturalism from a critical perspective and remind educational researchers that research is always about political representation. They argue that we might have, unintentionally, created the people we study.

Garcia, J. (1993, September). The changing image of ethnic groups in textbooks. *Phi Delta Kappan*, 29-35.
Garcia begins with a historical account of the movement for more inclusive textbooks in our schools. He documents the changes in the emphasis and the increasing sophistication of the dynamics of changing content. Garcia asks whether or not we are asking the right questions for textbook inclusion or if the content makes a difference.

Giroux, Henry A. "Curriculum, Multiculturalism, and the Politics of Identity." *National Association of Secondary School Principals Bulletin* 76: 548 (December 1992) p 1-11

A multicultural curriculum must not simply be imposed on a community and school. However, the curriculum must reflect the social, cultural, and political diversity that has come to characterize American life.

Gordon (1964) *Assimilation in American life*. New York: Oxford Press.

There are seven dimensions along which the assimilation of persons from different ethnic backgrounds into a host society should be analyzed.

Gundykunst, W.B., Ting-Toomey, S., & Wiseman, R.L. (1991). Taming the Beast: Designing a Course in Intercultural Communication. *Communication Education*. *40*, 272-285.

The authors contend that there has not been an adequate emphasis given to the training of instructors in the facilitation of intercultural communication. The authors introduce a master syllabus for introductory intercultural communication courses. An overview of the major issues is also presented.

Hall, E.T. & Hall, M.R. (1990). *Understanding Cultural Differences*. New York, NY: Intercultural Press.

The author analyzes differences between varied ethnic backgrounds and how to familiarize and understand these divers cultures.

Hemphill, D.F. (1992). Thinking Hard About Culture in Adult Education. *Adult Learning*. *3*, (7), 8-12.

An overview for building a framework of understanding culture and its interaction with the facilitation of adults is presented. Practical suggestions are give which offer ways that adult educators can explore issues of culture which affects adult learning situations.

Hoffman, L.R., & Maier, N.R.F. (1962). "Differences and Disagreement as factors in creative problem solving". In *Journal of Abnormal and Social Psychology*, Vol. 64. (pp. 206-214)
The article reports an experiment conducted with ninety-six four person groups to test the hypothesis that conflict generated by increasing the resistance of subordinate members of a group to a solution offered by a member in an authority position increases the frequency of high quality solutions. The study supported this hypothesis and concludes that for creative problem solving expressing and considering conflicting points of view should be encouraged.

Howard, G.R. (1993, September). Whites in multicultural education: Rethinking our role. *Phi Delta Kappan*, 36-41.

Howard urges white Americans to be positive participants in a richly pluralistic nation.

Kirchmeyer, C. & Cohen, A. (1992). "Multicultural Groups: Their Performance and with Constructive Conflict". In *Group and Organization Management*, Vol. 17, No. 2, pp. 153-170.

This article reports of a study that examined the effects of constructive conflict on decision making of multicultural groups. In a laboratory exercise, 45 four-person groups recorded their recommendations and assumptions regarding a business problem, and afterwards each individual completed a questionnaire on the experience. Ethnic minorities contributed considerably less to decisions that non-minorities did. However, with increasing use of constructive conflict, performance and reactions of ethnic minorities improved at rates either the same as or greater than those of non-minorities.

Kirchmeyer C. (1993). "Multicultural Task Groups: An account of the Low Contribution Level of Minorities" In *Small Group Research*, Vol. 24, No. 1, February, pp. 127-148.

This study sought to explain the contribution imbalance between minority and majority members of multicultural task groups in terms of differences in personal characteristics outside of racial and ethnic identity. Business students who volunteered to participate in a decision making exercise were assigned to four-person groups on the basis of sex and minority status. Afterwards, individuals completed questionnaire o the experience and their personal characteristics. Low communication competence, low masculinity, and high femininity were associated with minority status and with low contribution t decision making. High contributing minorities appeared to be motivated by needs unlike those of high contributing non-minorities.

Lynch, J. (1993). *Multicultural education in a global society.* New York: The Falmer Press.

The Author encourages educators in all educational settings to adopt a multicultural approach to their teaching. Lynch itemized the aims and objectives of multicultural teaching and offers concrete methods to infuse multicultural attitudes and practices into any learning endeavor.

Miriam, Sharan B. & Caffarella, Rosemary S. (1991). *Learning in Adulthood.* Jossey-Bass Inc., Publishers, (pp. 5-40) cited in are the following: Briscoe, D.B., and Ross, J.M. "Racial and Ethnic Minorities and Adult Education." Henry, W.A. "Beyond the Melting Pot"; Naisbitt, J., and Aberdene, P. *Megatrends 200: Ten New Directions for the 1990s.*

The first chapter in this book on adult learning sets the societal context of Adult Education and lists the social and cultural influences on Adult Education. The changing demographics is cited as one factor that has considerable implications for our field. In the United States the major trends in demographics are an increasing number of adults, a large minority population and on the whole the population is better educated.

Moran, R.T. & Stripp, W.G. (1991) Dynamics of Successful International business Negotiations. Gulf Publishing.

Discusses the twelve negotiating variables to consider when entering into business negotiations within international settings. The author defines the twelve areas to regard and the expected protocol for countries.

Marsick, V.J. and Cederholm, L. (1988) Developing leadership in international managers- an urgent challenge! *Columbia Journal of World Business*, 23, 3-11.

U.S. managers today work in a global economy that is prompting new ways of organizing, leading, and doing business. Action Learning can be used as a means to develop transformational leaders in the global marketplace.

Nance, E.E. (1993, Winter). School reform: Restructuring America's schools with emphasis on African Americans. *Community Education Journal, XX* (2), 25-26.

In this article the author argues that community education can and must address issues hat affect a variety of cultures at different levels. He posits educations as the key to helping minorities overcome conditions of racism and poverty and to better their lives. The author focuses on the benefits of community education.

Oddou, G.T. & Mendenahll, M.E. (1991) Succession planning for the 21st century: How well are we grooming our future business leaders? *Business Horizons*, 34, 26-34.

Companies say they want international experience for their top executives. However, expatriate managers are not highly regarded within their companies whey they return.

Ondrack, D. (1993) Internationalizing management education: human resource management. *Journal of Business Administration*, 2, 237-249.

Trying to perform effective human resource management at an international level greatly magnifies the complexity of human resource management policies, programs and activities. This problem impacts both the needs of the multinational corporation and MBA curriculum planning.

Poster, Mark, 1992. "Postmodernity and the Politics of Multiculturalism: the Lyotard-Habermas Debate over Social Theory." *Modern Fiction Studies* 38.3 (Autumn 1992) pp. 566-580.

Defines multiculturalism as "the term multiculturalism generally refers to curricula reform at institutions of higher learning (p 576). Describes three positions taken toward multiculturalism: conservative, liberal and postmodern. Describes how various postmodern philosophers' writings relate to postmodernism, including Foucault's attention to 'knowledges' and Habermas' universalism which denies multiculturalism.

Porter, R.E., & Samovar, L.A. (1988). Approaching Intercultural Communication. I Samovar, L.A., & Porter, R.E. (Eds.), *Intercultural Communication: A Reader* (pp. 331-339). Belmont, CA: Wadsworth Publishing Co.

The authors explore the relationship between culture and communication. Various aspects of culture and the communicative process is defined. These definitions are related to an intercultural communication model. Finally, the components of culture and communication are linked together to demonstrate the influence that culture has on the ability to effective communicate between cultures.

Ruhe, J. & Eatmen, J. (1977). "Effects of Racial Composition on Small Work Groups". In *Small Group Behavior*, Vol. 8 No. 4 (pp.479-486).

The article reports a study wit ninety-six male undergraduate black and white students. It sought to study the consequences of varying racial group compositions through selected attitudinal and behavioral variables in a simulated work group setting. Discriminant analysis was used to classify into distinct groups on the basis of these variables. The study suggests that while differences exist between races, integration is more beneficial to blacks and not detrimental to whites. Blacks can perform better and with better attitudes in integrated work groups that in segregated work groups.

Wax, Murray L. 1993. "How Culture Misdirects Multiculturalism," *Anthropology and Education Quarterly*, 24(2): 99-115.

Describes the current discussion of multiculturalism from an anthropological perspective. First seeks to define culture as a term inclusive of traditional 'high' culture and more contemporary concerns such as the female perspective. Concludes that ideology confuses definitions. Presents a history of scholarly definitions, highlighting differences and weaknesses among them. Proposes three themes of multiculturalism: (1) "Every [student] is a participant in culture and the product of a particular culture. The vision is of a one-to-one relationship between [student] and culture." (2) "Given, then, that the [student] is already a participant in a culture and a product of that culture, it follows that if schooling is to be humane and efficient, it should begin at that point, reaching toward the [student] in his or her native culture. It should not assume that because the [student] is unfamiliar wit some aspect of the dominant culture, its psyche is a vacuum, and the [student] is ignorant. Rather, the curriculum should be designed to deal with the [student at the point of entry into formal education." and (3) "The culture of the school should reflect the population of the school. Rather than simply reflecting and reproducing the characteristics of Western

BEST COPY AVAILABLE

civilization, or of some elite within the national society, it should incorporate materialisms from the cultures of its pupils. This will provide them with a sense of belonging and with models of achievement, it will be fair and equitable and will avoid the sin of Western chauvinism and ethocentrism" (pp 105-106). Also presents three major criticism of multiculturalism.

Personal Computer Training 2000—Time for a Change

GLORIA EDWARDS, University of Illinois at Urbana-Champaign

Contrary to marketing claims, the new look of PCs, with their ease of use and user-friendliness, translates into reduced, not eliminated, training time. Since statistics regarding training results are estimated at only 10%, a quasi-experiment was developed to revamp a high demand, low results DOS training workshop using research from human computer interaction and cognitive psychology which suggests possibilities for improving return on investment. Data from 47 of the 74 participants provide encouraging results with (a) approximately 91% of the attendees being a good match for the training, (b) metaphors proving highly effective in serving as mental models, and (c) conceptual problems of understanding being corrected through on-going research. A new method of PC training is long overdue. HRD decision makers must begin to raise the same issues identified in this study with those responsible for PC training. This study, a first step toward defining an effective PC training method, moves in the direction for positive change. Let's stay on this road.

Personal Computer Training 2000 - Time for a Change

IBM's introduction of its first personal computer (PC) in 1981 (Blissmer, 1987, p. 429) spearheaded a decade of enormous technological change; one which revolutionized workload and workflow in industry, and evolutionized instruction in education (Dolberg, 1992). PCs currently breathe knowledge and life into nearly every occupation and leisure environment imaginable. Thus far, this second decade has literally redefined change to the extent that no single individual can possibly expect to keep pace. PCs are faster, cheaper, and more powerful; and software surgery in the form of graphical user interfaces (GUI) have supplied PCs with facelifts called Windows and the dosshell (Clements, 1993; Wharton & Dear, 1990). The new look of PCs represents a fun, attractive, productivity tool equipped with its own easy to use language (Krushenisky, 1992). Users can now point and click, scroll and view, drag and drop, and tile and cascade information via icons, buttons, and drop-down menus. Today's easier and friendlier PCs translate into reduced, not eliminated, training time (Fitzgerald, 1993).

Amidst this good news, decision makers in both industry and academia have paused to ponder some serious questions. While industry is concerned about performance and productivity, academia is concerned with learning and instruction. Both seek to attract and retain a competent workforce. Will these employees possess sufficient knowledge and skills to adequately perform computer-related tasks? Is training required? If so, from where and at what cost? Is there any guarantee employees will learn and use the new skills?

Inflation, severe budgetary cuts, reorganizations, and employee reductions have forced both groups to evaluate and justify their training investments based upon realistic, achievable, measurable goals which in turn must lead them to becoming globally competitive (Fitzgerald, 1993; Ford, Quinones, Sego, & Sorra, 1992; Goldstein, 1991). Access to information is the key, and since computers provide that access, PC skills are no longer an option. Good PC skills are now a mandatory job requirement.

The Issue of Training

Training in and of itself is a complex issue (Goldstein, 1991), and contrary to marketing claims, PC training is no different. Regardless as to its source, e.g., software tutorials, computer books, video tapes, or formal training, the ability to satisfactorily perform computer-related tasks at various levels following training is contingent upon several factors: (a) readiness to learn, (b) motivation to learn, (c) individual characteristics, (d) instructional design and delivery, (e) good documentation, (f) opportunity to practice skills, (g) user support, and (h) some workable system of evaluation (Baldwin & Ford, 1988; Carter & Honeywell, 1991; Ford, Quinones, Sego, & Sorra, 1992; Goldstein, 1991). Statistics regarding training results, in general, are not good. Return on investment has been estimated at only 10% (Stine & Wildemuth, 1992). We can do better with PC training. Technology has changed. The workforce has changed. It is now time to change our method of training individuals for the acquisition and on-going use of PC skills.

The Need for Change

Little research exists on the most effective method for training PC users. However, research from human computer interaction and cognitive psychology provides insight into possibilities (Stine & Wildemuth, 1992). Both fields suggest (a) providing users with understandable concepts regarding how the software is designed to operate (mental model), and (b) using metaphors as illustrations of new concepts (Carroll & Olson, 1987; Chisholm, 1986; Stine & Wildemuth, 1992). Research from instructional design tends to support these theories and suggests the integration of other theoretical positions as appropriate (Smith, 1989). Emphasis should include (a) minimizing rote memorization of procedures to reduce information overload, (b) maximizing error recognition and recovery skills to provide users with a sense of control, (c) duplicating aspects of the workload through the use of realistic exercises to increase the potential of training transfer, and (d) developing minimalistic documentation and concise job aids to assist learning and improve work performance (Stine & Wildemuth, 1992).

The Issue of Learning

If learning is to be realized and applied, the present approach of providing generic PC skills to integrated groups of users must be modified. Attendees must be a good match for the training. Establish prerequisites and enforce them whenever possible to increase the likelihood of success. Participants should be a good match for the skills being taught. Supply them with detailed course descriptions prior to training which are indicative of what will truly transpire in the training sessions. Make class size consistent with the learning level of participants, and course material appropriate to those in attendance. Accumulate data on user characteristics and workload tasks to serve as guides in the design and delivery of the training. Monitor transfer of skills in terms of short- and longer-term measures, i.e., immediately following training, 1-2 weeks after training, and 2-4 month after training. Get users some quality support, particularly during the first 30 days following training. And equally important, establish a workable system of formative and summative evaluation to monitor the training program and user progress.

The Purpose of the Study

A study was undertaken to revamp a high demand, low results DOS training workshop using the research recommendations stated above. The focus was on user characteristics, their work environments, and the first level of DOS skills required for adequate job performance. The purpose of the study was to investigate if such a method of PC training contributes to increased learning, retention, and skill use on the job following training.

Method

After determining that DOS training was required for both traditional DOS users and Windows users, a quasi-experiment was developed and conducted at two different

Business Training Centers in a small mid-west city. Training brochures were distributed six weeks prior to the workshops. A maximum of 10 participants was assigned to one of eight training workshops. Registered attendees were contacted prior to the training classes and provided with a detailed course description. In-depth demographic data provided guidance for the instructional design and documentation development, with proven computer metaphors serving as mental models for how the software would operate.

Two skill assessment instruments were developed (a) to evaluate if the training was a good match for the attendees, (b) to analyze conceptual problems of understanding, and (c) to evaluate if the metaphors were successful as mental models. The first was administered immediately following the training and the second one, a practice exercise, was returnable 1-2 weeks following training. Neither instrument was meant to measure skill mastery.

Participants

A total of 74 individuals participated in the study. Critical user characteristics were as follows: 70% (n=52) were female and 30% (n=22) were male; 73% (n=54) were 41 years of age or older; 66% (n=49) possessed a Bachelors Degree or higher; 57% (n=42) had a minimum of 16 years of full-time work experience; and 82% (n=61) listed "Desire to improve computer skills" as their primary reason for participating in the training. Computer skill analysis revealed that 91% (n=67) were IBM PC users; 84% (n=62) had at least one year of PC experience; 46% (n=34) had previous DOS training; 11% (n=8) had no working knowledge of DOS; 8% (n=6) could not type; and 4% (n=3) had no PC experience prior to the training.

Procedure

Eight 3-hour training workshops with identical content were delivered by the same instructor during October 1993. Concepts were communicated using metaphors within each group through classroom demonstrations and pictures contained in the customized workbook. Exercises included loading software into the computer, which was the highest demand skill requested by the users. The first skill assessment instrument was administered immediately following training, and each user was given the practice exercise with specific instructions for completion and return. Support in the work environment was guaranteed for sixty days following training via telephone, electronic mail, fax, and one-on-one interaction. Two evaluation instruments gathered reaction data to the training and follow-up data regarding the practice exercise.

Results and Limitations

Circumstances beyond the control of the study prevented data collection or eliminated collected data to the extent that information from only 47 attendees could be used to analyze the results. In spite these limitations, the results were encouraging. The metaphors proved to be highly effective in serving as mental models. All 47 users were able to link at least one metaphor to the DOS concepts. Approximately 91% of the attendees were a good match for the training in that they possessed the prerequisite skills for success. Results from the skill assessment administered immediately following training showed a mean score of 37 (range of 5 to 49) with 49 being the highest possible score. Twenty-eight users scored the mean or higher. Data from those who returned the practice exercise (n=24) showed a mean score of 28 (range of 5 to 40) with 40 being the highest possible score. Twelve users scored the mean or higher. Follow-up with the 23 users who did not return the practice exercise revealed that their workloads were too heavy to allow completion. However, they were using the skills to complete tasks on a daily basis, thereby obtaining the much needed practice through direct application. Since only 21 scores could be paired, a t-test analysis was inappropriate. Evaluations tied to the workshop showed ratings at almost the maximum (6 on a 1 to 6 scale) in every category with comments tied directly to instructional design and delivery and the understandability of abstract concepts. Follow-up regarding the practice exercise showed a consensus of agreement that the best way to obtain hands-on practice would be to supplement the training with a follow-up session designed specifically for practice and feedback. Research is continuing based upon in-depth analysis of the skill assessments to correct conceptual problems. It was determined that a supplemental workshop was needed to train traditional DOS users to utilize the dosshell, a GUI, rather than cryptic DOS. Design is complete and the workshop is undergoing a pilot test.

Implications

Because of the study's small scale, findings can only be generalized with caution. We can, however, say with confidence that the most productive PC users will inevitably be those who understand PC concepts and use their PC skills. The extent of use will depend on how comfortable and confident each individual feels executing the skills. The participants in this study learned during the training how to identify errors, when to initiate troubleshooting techniques, and how to use reference material as a means of building confidence. HRD decision makers must begin to raise the same issues identified in this study with those responsible for PC training. When the design and delivery of PC training is perceived to be as crucial as on the job performance, then both sides can begin to talk about the possible return on investment. This first step towards defining an effective PC training method moves in the direction for positive change. Let's stay on this road.

References

Baldwin, T.T. & Ford, J.K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology, 41(1)*, 63-105.

Blissmer, R.H. (1987). *Computer Annual: An Introduction to Information Systems 1987-1988*. New York, NY: John Wiley & Sons.

Carroll, J.M., & Olson, J.R. (Eds.). (1987). Mental models in human-computer interaction research issues about what the user of software knows. Workshop on Software Human Factors: Users' Mental Models, Washington, DC, May 15-16, 1984. (ERIC Document No. ED 292 465)

Carter, J.H. & Honeywell. (1991). Training older adults to use computers. *Performance and Instruction, 30*(2), 9-15.

Chisholm, R.M. (1986). Using metaphoric terminology in the computer industry. *Technical Communication, 33*(2), 113-114.

Clements, J.A. (1993). The computer revolution of microsoft windows: A look at its effects on quality computing. *Quality Progress, 26*(3), 104-112.

Dolberg, S.H. (1992). Integrating applications in the real world: Evolution, not revolution. *Open Information Systems, 7*(7), 3-25.

Fitzgerald, M. (1993). Training: It'll cost you. *ComputerWorld, 27*(3), 68.

Ford, J.D., Quinones, M.A., Sego, D.J., and Sorra, J.S. (1992). Factors affecting the opportunity to perform trained tasks on the job. *Personnel Psychology, 45*(3), 511-527.

Goldstein, I.L. (1991). Training in work organizations. In Dunnette, M.D. and Hough, L.M. (Eds.), *Handbook of Industrial and Organizational Psychology*, 2nd Edition, Volume 2, 507-619.

Krushenisky, C. (1992). GUI speak: learning the lingo. *PC Novice, 3*(11), 71-72.

Smith, P.E. (1989). Some learning and instructional theory considerations for the development of computer related instructional materials. *Educational Technology, 29*(11), 18-19.

Stine, W.D. and Wildemuth, B.M. (1992). The training of microcomputer users: Insights from two disciplines. *Journal of Education for Library and Information Science, 33*(2), 100-109.

Wharton, A. & Dear, M. (Eds.) (1990). The value of GUIs. *Wharton Report*, Issue No. 46, 1-8.

Multicultural Adult Education in the United States, or "We'll Deal with that Next Year"

PAMELA K. EDWARDS, Iowa State University

The socially conscious adult educator * of the late twentieth and early twenty-first century knows that cultural diversity is a critical concern. African-Americans comprise a steady 12 percent of the population. During the last decade the Hispanic population has grown by over 30 percent, a rate five times faster than the rest of the population (Ross-Gordon, 1990). "For the first time in U.S. history, demographic profiles of the work force indicate that White males are the minority—46 percent." (Martin and Ross-Gordon, 1990 p. 45).

By the year 2000, just seven (7) years from now, it is projected that one-third of the school children in the United States will be comprised of ethnic minorities. In 25 of the largest city school districts over half the students come from minority groups. In California, the Asian Pacific population is larger than the African American population, and becoming second, as a minority group to the Latinos (Cassara, 1991).

It has been my observation that it is politically correct to profess one's understanding and commitment to multiculturalism: or cultural pluralism, diversity, cross cultural training, multicultural adult education, depending on what your preferred terminology may be. I would also contend that it is a lot easier to profess commitment to multicultural adult education than to successfully plan, deliver, and evaluate programs addressing multicultural issues, audiences and communities as a whole.

Adult educators already know that diversity is changing all aspects of our professional lives. On a college or university campus multicultural issues have been a high priority for years; the recruitment of diverse faculty is a top consideration in every faculty hire. In business and industry the complexity of the work force increases. Human resource development practitioners have been, in many cases, on the front lines of diversity "training" and discussions regarding the best delivery systems for their people and organization.

But, in a nutshell, this is not enough

The measure of success to the multicultural challenges in the United States cannot be measured by the percentage of "diverse" faculty hires, or accolades from the Affirmative Action Office. Nor can HRD professionals calculate the progress within their organizations by hours of diversity training delivered, or profits gained in a given year. None of this speaks to the success or failure of people of dramatically different cultures being able to understand and appreciate the other; to be able to work alongside each other without feelings of superiority or inferiority; and the energy each may or may not have expended assessing their own culture and why we do what we do and think what we think.

To those ends, three main challenges will be discussed in more detail, along with recommendations for action by adult educators.

Challenges Facing Adult Educators

It would be a grave oversight to suggest that adult educators have had limited success with multicultural education. Beverly Cassara, a leading writer in the area of multiculturalism in adult education, specifically mentions English as a Second Language instruction as a positive example of what adult educators can accomplish (1990, 1991). Additional readings in preparation for this paper confirmed this statement by Cassara (Martin, 1990).

---

* *The term "adult educator" is used by this author as an all encompassing descriptor for individuals involved in higher education as scholars, HRD practitioners, community education professionals and continuing education instructors.*

Challenge #1. Multicultural Adult Education Research and Writing Must Increase in the Next Five Years.

In Jovita Ross-Gordon's "Needed: A Multicultural Perspective for Adult Education Research," she says (1991, p. 1),

> Educators have recently taken interest in understanding the needs of racial and ethnic minority youth in schools. A review of adult education research literature over the last five years suggests the adult education research community has not shown a similar interest. Given the traditional under-representation of minority adults in adult education programs and considering the changing demographics of the U.S., this omission gives cause for concern.

In Beverly Cassara's paper presented at the Executive Committee Meeting of the International Council for Adult Education (Gothenborg, Sweden, April 4-11, 1991), she shares that when she was working on her book "Adult Education in a Multicultural Society" she found very little literature on adult education for multicultural situations. She states,

> "There is almost none (research) which speaks to the philosophical foundations for such work. This does not mean that nothing has been written. It means that while good programs may include work with ethnic minorities, this work has been incidental to a larger program.....The literature has endless entries on multiculturalism for grades K-12.....if we do not think specifically about the meaning of cultural pluralism, we may not have a good understanding of the implications, and may be working against the best interests of this concept unwittingly." (p. 13).

The underlying, and very disconcerting message with this research vacuum rests in the fact that multiculturalism/cross cultural training is not a new issue. Throughout the last five years there has been no appreciable change in the amount of research and writing by adult educators of multicultural education. During the research and writing of this paper, there was near disbelief with the scarcity of writing in multicultural adult education. This must change. Scholars and practitioners alike must have focused debate about the critical issues facing them.

Some of the issues facing business and industry alone include: minority participation in pre-employment training, race relations and organizational culture, workplace communication difficulties, and the need for remedial programs for individual minorities (Martin and Ross-Gordon, 1990).

Challenge #2. The Dominant Culture Remains Dominant.

Americans have generally had the attitude that our great nation is a "melting pot" of diverse individuals and that over time "they" will all eventually become like "us" (Fantini, 1991; Cassara, 1991). There is not a felt need among most Americans, adult educators included, to deal with people from other racial or ethnic backgrounds much differently than we deal with people just like ourselves.

The two key issues of most concern to "dominant" adult educators are, first, to invest just as much energy, if not more, in the dominant culture understanding its own culture, as we invest in understanding others; and second, to critically assess the participation and accessibility of adult education for minorities.

Related to the first issue, self-analysis by the dominant culture, it seems the focus of most training and education is directed toward the dominant culture's understanding of the minority cultures. It has been more of a linear analysis than a transactional analysis of each other's culture. "The dominant culture needs to learn to see everyone in the United States as equally worthy Americans" (Cassara, 1991, p. 11). Individuals within a dominant culture must be willing to analyze their own culture as critically as they evaluate another's.

Barer-Stein, 1990, supports the contention that the dominant culture needs to do more self analysis:

> "There are some things that each of us knows, but we do not know how it is that we know them. We know what is familiar and what is not. Familiar people, things, places, and ways, have already been worn smooth with well-acquainted use and contribute to our sense of comfort, identity, and belonging. Familiar things represent relevancy and provide meaning in our everyday life. They are the basis of that everyday life; and perhaps some of the comfort in familiarity that we feel may result from the minimal effort required for the habitual. No effort is needed to learn what we already know. There seems no need to study one's own culture (Barer-Stein, 1990, p. 163).

Addressing the adult educator, he/she can only call upon the number of cultural experiences he/she has had personally as a way of evaluating "what is." Given that a dominant culture may see other cultures as deficits, a particular educator's repertoire could be quite limited. People that have a limited breadth of cultural awareness probably operate rigidly in terms of a single culture orientation.

Thelma Barer-Stein in her article, *Experiencing the Unfamiliar*, explains that in our quest to understand the unfamiliar we are driven to a profound knowledge of ourselves. "Seeking to discern the unfamiliar external to oneself results in a correspondingly deeper renewal of familiarity with the submerged knowledge within. Interest begets interest, understanding begets understanding, and learning begets learning" (1990, p. 170).

Barer-Stein's research focused on instructors of ESL courses. Her study began with a single question, "How did you learn to teach adults from different cultures?" As her research continued the importance of different cultures and even adults was not so important as, "How did you learn?" What she found out is that people—of all cultures—dominant and minority—learn through an analysis of themselves, the way they live, think, feel and talk. In Barer-Stein's opinion the best ESL instructors were those that have an innate curiosity for the unfamiliar.

At Digital Corporation, Alan Zimmerle, corporate manager of affirmative action programs, (Piturro and Mahoney, 1992) reports the key to their successful diversity training programs in the early 1980s happened when consultant Barbara Walker finally got executives talking about themselves and their own feelings about race and gender.

Richard Orem, associate professor of adult education, Leadership and Educational Policy Studies at Northern Illinois University, talking about the integration of knowledge and practice says, "In order to increase your understanding of cultural differences in the classroom or workplace, start with being a more careful observer and listener....Try to build into daily routines activities that bring different groups together in such a way that they can learn to see how their differences affect communication patterns and attitudes" (1991, pp. 9-10).

In a final thought on this action step, Hemphill (1992) speaks in *Adult Learning*, "Thinking Hard about Culture in Adult Education, "We need to focus not so much on fascinating surface-level practices of our culture or other cultures as much as what those phenomena mean" (p. 9).

Pai (1990, p. 24) encourages all people to expand their cultural experiences as much as possible so that they might be able to construct new ideas about daily situations—

these ideas would not fit neatly into one culture or another, they would simply be new and different.

In a society like America, conflicts and values debates abound. "We will increasingly have to interact with people who do not share our own system of norms and beliefs," states Pai (1990, p. 26).

"Helping adults construe experiences in a way in which they may more clearly understand the reasons for their problems and understand the options open to them (through critical understanding of their own culture and those of others) so that they may assume responsibility for decision making is the essence of multicultural education," (Mezirow, 1984, p. 135).

A second issue for "dominant culture" adult educators is participation and accessibility. Those people overrepresented in adult education programs are Whites, persons with a college education, persons living in the western United States, persons with above-median incomes, and persons working in executive, professional, or technical occupations (Hill, 1987, p. 2). Education and income level are more significant than race in predicting participation, because well-educated Blacks and Whites participate at about the same levels. The same is the case for Blacks and Whites of similar economic status (U.S. Bureau of Census, 1989).

Minorities are welcomed to programs IF—they know about them, if they feel welcome, if they can afford them, if they feel they will be comfortable in them, if they feel these programs can really make a difference to their well-being, if there is child care for their children, if anyone speaks their language, and if they can get themselves registered (Cassara, 1991). The aforementioned details address the inability of the dominant culture to be aware of needs that are much different than their own.

Another solution to the access problem is to take the education out to the people. Cassara (1991) shares in her paper the experience of a professor in a community college in California where the majority population is Hispanic, but less than 25 percent of the students in the college were Hispanic. "The professor decided to go into the community and have meetings with the people wherever they met for other reasons. He held consciousness-raising sessions for the people to help them raise their self-esteem. He got permission from the college to hold some of his introductory classes in community gathering places.....When the people began to believe that education could help them.....they began to enroll and then the community college could serve the purpose for which it had been created" (p. 8).

Cassara speaks (1991) of her own experiences teaching graduate students. She recommends an adult education graduate class entitled, "Working with Minorities." In her own community she has taken graduate students out to the people, specifically black women in low-income housing projects. She did this "not to tell them what they should do, but to be mutually respected friends, to learn from them how they cope and keep a family going, what their values are, what their needs are and what kind of help they would like to have."

This graduate school experience led by Cassara is a perfect example of the kind of adult education Myles Horton and his Tennessee Highlander School perpetuated from 1932-1962 (Glen, 1988). The following summarizes the leadership of Myles Horton (source unknown).

Go to the people
Learn from them.
Live with them.
Love them.
Start with what they know.
Build with what they have.
But the best of leaders,
when the job is done,
when the task is accomplished,
the people will all say
"We have done it ourselves."
by Lao Tzu, 604 B.C.

The wisdom in this ancient proverb for the adult educator speaks for itself. On a final note, it is education like this—outside the classroom—that has the greatest potential to impact the lives of everyone involved. This kind of learning is encouraged.

Challenge #3. Adult Educators Of The Future Must Work Collaboratively To Meet An Individual's Complete Needs In A Culturally Diverse Society.

Up to the current time, most organizations have developed their multicultural programming in a manner that is largely guided by their own self-interests. Universities provide formal assistance to minority students so that they can retain as large a percentage of these students as possible—a desirable characteristic for an ethnically sensitive university community. In the for-profit sector, HRD practitioners and the organizations they represent are interested in the individual minority worker, but largely just to the extent that his/her needs are relevant to the profitability of the parent organization. No one really faults either organization cited here for these efforts. The point, however, is that this is not enough for the adult educator to be concerned about.

Rather, the adult educator must also contribute to the social justice of America. This can be accomplished, to a greater extent than it is now, by working collaboratively with other adult education providers. Corporations generally feel that they must do it all from inside their own walls. Granted, there are certainly exceptions, but the margin for improvement is limited only by the creativity of the individuals involved. Collaborative combinations should be encouraged between corporations and universities; law enforcement agencies, religious institutions, federal job programs (Ross-Gordon, et. al., 1990, p.105) and other neighborhood groups. Additionally, these collaborative efforts would likely go further in creating meaningful change in individual lives if they grew out of the participation and suggestions of the people that want to attend.

In an ideal community education model, the "process seeks to integrate community and learning in such a way that they are extensions of one another and act as equal partners (Buck-Briscoe, 1990). Community education espouses a way of life that involves people working together in total partnership to identify an ideal and a means of realizing it" (p. 81). Just as many other industries and organizations have been forced to merge, cut costs, restructure and in general become more competitive, so too must adult educators work together to provide learning opportunities to the minority communities that will help individuals and their families work, learn and relax together.

For the HRD practitioner guiding training and development activities in a global marketplace, it is no secret that human potential is of critical importance to profitability and continued existence. Add to that the increased numbers of minorities in the workplace. The ability of culturally diverse individuals to work together compatibly on complex problems, in a time-efficient manner is critical. All adult educators must recognize that workplace training is not enough. We must learn how each other lives, loves, laughs and learns.

Conclusion

In the Summer, 1992, issue of *Community Education Journal*, Carolyn Ward and Everette Nance discuss "Social Change: The Schools, The Courts, The Government, The People" in their special article on multiculturalism (pp. 27-30). They ask the question, "Does everyone really want change?" If so, they say, who wants change the most? They conclude that "those who are the least powerful and the most aware are likely candidates....the oppressed in our society...ethnic minorities, women, the poor, the homeless" (p. 27).

But they argue, and this writer concurs, that it will not be the schools, the courts, or the government that will create change. The schools, the courts, and the government are merely a reflection of the society that currently exists. So, it is the people that must create change. "The most important ingredient for social change, however, seems to be the people who are aware of their social conditions and are willing to act" (p. 30).

As instruments of social change in a multicultural America, we as adult educators must help ALL people better understand themselves, help ALL people become more aware of their social conditions, and create a vision for the world we ALL want to live in.

Bibliography

Barer-Stein, Thelma (1990) Experiencing the Unfamiliar: Matrix for Learning in Beverly Cassara (Ed.) *Adult Education in a Multicultural Society* (pp. 167-185). London and New York: Routledge.

Buck-Briscoe, Diane (1990) Community Education: A Culturally Responsive Approach to Learning in Ross-Gordon, Martin, Buck-Briscoe (Eds.) *New Directions For Adult and Continuing Education: Serving Culturally Diverse Populations*, (No. 48, Winter, 1990, pp. 81-92). San Francisco: Jossey-Bass.

Cassara, Beverly B. (1991) *Multiculturalism: The Challenge to Adult Education in the United States*. Paper presented at the Executive Committee. Meeting of the International Council for Adult Education. Gothenborg, Sweden.

Cassara, Beverly B. (1990) *Adult Education in a Multicultural Society*. London and New York: Routledge.

Fantini, Alvino E. (1991) Becoming Better Global Citizens: The Promise of Intercultural Competence, *Adult Learning* (Feb., pp 15-19.)

Glen, John M. (1988) *Highlander: No Ordinary School*. Lexington: University of Kentucky Press.

Hemphill, David F. (1992) Thinking Hard About Culture in Adult Education, *Adult Learning* (May, 1992, pp. 8-12).

Hill, S. (1987) Trends in Adult Education, 1969-1984. National Center for Education Statistics, (ED 282 054) 1987.

Martin, Larry G. (1990) Facilitating Cultural Diversity in Adult Literacy Programs in Ross-Gordon, Martin, Buck-Briscoe (Eds.) *New Directions For Adult and Continuing Education: Serving Culturally Diverse Populations*, (No. 48, Winter, 1990, pp. 17-30). San Francisco: Jossey-Bass.

Martin, Larry G., Ross-Gordon, Jovita M. (1990) Cultural Diversity in the Workplace: Managing a Multicultural Work Force, in Ross-Gordon, Martin, Buck-Briscoe (Eds.) *New Directions For Adult and Continuing Education: Serving Culturally Diverse Populations* (No. 48, Winter, 1990, pp. 45-54). San Francisco: Jossey-Bass.

Mezirow, Jack (1984) A Critical Theory of Adult Learning and Education, in Sharan B. Merriam (ed.) *Selected Writings on Philosophy and Adult Education,* Malabar, Florida: Robert Krieger.

Orem, Richard A. (1991) Preparing Adult Educators for Cultural Change, *Adult Learning* , (Feb., 1991, pp. 8-10).

Pai, Young (1990) Cultural Pluralism, Democracy and Multicultural Education, in Beverly Cassara (Ed.) *Adult Education in a Multicultural Society* (pp. 11-27). London and New York: Routledge.

Piturro, Marlene and Mahoney, Sarah S. (1992) Managing Diversity, *Adult Learning* (May, 1992).

Ross-Gordon, Jovita M. (1990) Serving Culturally Diverse populations: A Social Imperative for Adult and Continuing Education, in Ross-Gordon, Martin, Buck-Briscoe (Eds.) *New Directions For Adult and Continuing Education: Serving Culturally Diverse Populations,* (No. 48, Winter, 1990, pp. 5-15). San Francisco: Jossey-Bass.

Ross-Gordon, Jovita M. (1991) Needed: A Multicultural Perspective for Adult Education Research. *Adult Education Quarterly* (Fall, 1991, 1-16).

U.S. Bureau of Census, Department of Commerce. (1989) *Statistical Abstracts of the United States*. Government Printing Office, Washington, D.C.

Ward, Carolyn M. and Nance, Everette E. (1992) Social Change: The Schools, the Courts, The Government, The People. *Community Education Journal (*Summer, 1992, pp. 27-30).

Women in Management—Climbing the Corporate Ladder

SHARON ELLIS, University of Arkansas

The composition of the workforce has changed significantly since the mid 1970's. The one-income family began to disappear with women entering the workforce to maintain or to supplement the family income level. The culture of the family, as well as the perception of women's role, is being reexamined. From 1970, when less than one-third of women worked, to today, with over one-half of women making up the workforce, the nature and culture of the work environment is changing. Although the change from the male-dominated status quo in the corporate world is not occurring as rapidly as some would want, transformation is taking place.

A growing awareness of the progress of women's climb to positions in top management is evident from recent studies. Research has revealed that there is most certainly "a point at which women and minorities have not advanced" (Department of Labor, 1991). According to information reported by the Labor Department, the number of female managers increased from 32% in 1983 to 41% in mid 1991 (Fisher, 1992). The term "manager," however, was broadly-defined to include all management-type positions. A poll of 201 CEOs of the nation's largest corporations indicated that senior level management positions were held by only 4.8% women; the 1986 level was only 2.9% (Fisher, 1992). Women have achieved a substantial proportion of first and middle-management positions. Breaking through to the top has proven more difficult.

The Glass Ceiling

The artificial barrier "based on attitudinal or organizational bias that has prevented qualified individuals from advancing upward in their organization into management level positions" is known as the glass ceiling (Department of Labor, 1991). According to Soloman (1990) and Morrison (1987) two barriers have been identified—the glass ceiling and the glass wall.

The Glass Wall

In the three-year study of 76 top female executives in Fortune 100-sized companies conducted by Morrison, White, Van Velsor, and the Center for Creative Leadership, an additional barrier was identified—"the wall" (1987). After the glass ceiling is finally broken, women unexpectedly encounter another—a wall of tradition and stereotyping. Complete acceptance into the inner sanctum of senior management is difficult for women to attain. The wall barriers identified reveals that women were:

1. stereotyped as staff people and it was difficult to break into a line job.
2. hemmed in by multiple and conflicting expectations; women had to combine male and feminine characteristics and had to take risks without making mistakes.
3. less accepted in their new role; former sponsors are now competitors at the higher level.

Barriers

What barriers continue to hold women back? While discrimination seems to be the most obvious, other obstacles exist. Discrimination was cited as the greatest barrier by the CEOs in the survey conducted by FORTUNE (Fisher, 1992). Senior managers tend to select coprofessionals much like themselves. Top executive positions are generally held by older, traditional males. Their perceptions, beliefs, and biases have played a major role in the selection of senior managers.

The traditional roles of women as wives, mothers, and nurturers may also contribute to male reluctance to provide equal opportunities. Many older managers have been socialized to believe that the woman's place is in the home, providing for the needs of the family. These cultural norms may also contribute to a woman's fear of success (Frusher, 1989).

Male power cliques also present a barrier to top management spots for women. The good old boy network has often excluded women and can subtly freeze women out (Watts, 1989). The old boy network can restrain a woman from obtaining vital corporate information through social functions and informal meetings, which impedes the process of forming coalitions.

Male executives may be unwilling to risk placing a woman in a position in which they feel she may fail. They may doubt the ability of the female to cope with the responsibilities of a manager, and the male CEO may fear the consequences of positioning a woman in a high position (Morrison, 1987).

Women are more predominant in middle-management positions. It appears men have readily accepted and even supported the movement to this level. Positions are more plentiful and power at this level is more confined. However, women's movement to top level positions may pose a more threatening situation to men; competition for higher pay and increased power may intimidate their male counterparts. In 1970 only 2% of top executives were female; even today, the total remains under 6% (CNN, 1992). According to Soloman (1990) this total is even less—today a mere 2%. Men may also be reluctant to share in the power and financial rewards of top level management. There are fewer high paying top executive positions and competition is intensive for these jobs. There may also be a reluctance to share the power at the top.

Lack of experience and exposure imposes a limitation to top level status for women. Male counterparts are groomed for higher positions early in their career, often being provided with a mentor and with a variety of leadership training experiences. Women, on the other hand, have not been afforded these experiences early in their career. Most management positions in the past have been held by males who have been reluctant to serve as mentors for women. Some men feel uncomfortable with women in top management roles, perhaps because they feel threatened, have formed biases, have stereotyped women, or simply because they believe women are not as capable. Men generally have not had women as friends or as equal coworkers and have been reluctant to shed these biases to take on a female protege. Finding mentors for women has been more difficult partly because there have been fewer female executive role models.

Men traditionally have been provided with internal development (rotational assignment, mentoring, training), external development (graduate studies, executive development programs), and international assignments, and have been promoted to visible positions (Department of Labor, 1991). These corporate experiences have further enhanced their credentials and has provided them with a clear advantage. Females have generally been relegated to management positions in human resources and public relations, with nine out of ten female vice presidents currently holding positions in these areas (CNN, 1992). These positions are not on the same track to the top. Overseas corporate assignments, cited as one of the most valuable to climbing the corporate ladder, are primarily given to men, with 95% of these positions held by men.

One factor holding women back according to Aburdene and Nasbitt (1990), is themselves. Women thirty and over have formulated their goals and roles in a world where they were a minority and may have possibly set their goals too low. Aburdeen and Nasbitt propose that women reexamine their goals and work out a specific plan for achieving them. Fear of success has been identified as a possible obstacle. Many women ascend almost to the top and then exhibit defeatist behaviors (Frusher, 1989). Familial socializations, those expected behavioral roles of the family, may result in flight from competitive situations.

Boys have been taught to be competitive and aggressive; girls have been socialized to be noncompetitive, to be passive and nurturing. Psychological factors, attitudes, and beliefs, such as guilt, also influence how a woman may react to situations. Women who think of a career as a game may actually be afraid of achieving success, believing that success, or the quest for success, may impose difficult demands (Frusher, 1989).

Friedman (1988) suggests that some women have self-imposed these plateaus. Having reached a high enough level to provide competitive pay and flexibility enables women to cope with both family life and work. These working women may not want to sacrifice family life by working longer hours, traveling more, or accepting promotions which may impose even higher levels of responsibility and stress.

The policy of filling top management positions from those advancing through the ranks also reduces the number of available female applicants (Department of Labor, 1991). Tenure and the policy of filling vacancies with those progressing through promotions may explain why some corporations have fewer women and minorities at senior levels of management.

Results of a pilot study of nine Fortune 500 companies completed by the Department of Labor (1991) revealed that some companies filled mid and upper level positions by word of mouth referrals. In some instances these positions were filled through casual interviews. Opportunities for women were diminished due to the network system and methods of interviewing. Although most large companies did employ an EEO Director to comply with equal opportunities, this person rarely became involved with hiring of mid and upper-level positions.

Several female managers believe they must perform at a higher level than their male counterparts (Soloman, 1990; Watts, 1989). Some have made major sacrifices to achieve their career goals, sometimes foregoing family, divorcing if married, or remaining single. Women are expected to have more strengths and fewer faults than men (Morrison, 1987). Pressure at three levels were constantly pushing on the women executives—pressure from the job, from assuming a pioneer role, and from the strain of family obligations.

Solutions

Having identified possible barriers related to women's climb to the top, solutions have been proposed:

1. Institute a diversity management program to make the workplace more receptive to talent, regardless of sex, race, or origin (Fisher, 1992).
2. Develop a pipeline for women, providing them with the same training and mentoring opportunities as men.
3. Conduct workshops to expose and dismantle workers' prejudices, creating awareness of biases (Fisher, 1992).
4. Conduct leadership training seminars for women (Morrison, 1987).
5. Provide a family support system to provide family-friendly benefits for women.

Proposed programs include on-site wellness centers, company-owned child care facilities, on-site school programs, referral and counseling centers for child care and elderly parents, job sharing, flexible hours, work-at-home arrangements, paternity/maternity/adoption leaves, and disability and dependent care benefits. Because of this overwhelming new pool of family benefits, some women are becoming too comfortable and too complacent (CNN, 1992). Benefits available may overshadow women's desire to reach the top; women may not realize that there are few females in top positions.

BEST COPY AVAILABLE

Strategies for Success

What should females be doing to get to the top? According to Watts (1989) women should find common ground, build rapport, develop a sense of humor, develop a nonthreatening approach, and play the game while giving a good performance. In the 1987 study completed by Morrison, White, and Van Velsor, successful top female executives revealed they had received help from above, had a track record of achievement, had a desire to succeed, had an ability to manage subordinates, took career risks, and were tough, decisive and demanding. Receiving help from above was cited by all respondents and they agreed that mentoring played a vital role in their success. The women executives also reported that providing consistent outstanding performance, developing a strong advocacy relationship with another senior manager, and outright luck contributed to their success.

The Future

Population projections for the next 30 years indicate that over one-half of new entrants will be women. Forecasters believe that males will constitute only 15% of new entrants by the end of this century (Freeman, 1990). According to Johnson and Parker in *Workforce 2000: Work and Workers for the 21st Century* , by the year 2000 85% of all new workers will be women, minorities, and immigrants (Soloman, 1990).

What then will the future hold for women in the workplace? Many will become frustrated with the barriers in the corporate world and will break away to form their own businesses. The tremendous growth of women-owned businesses is expected to reach one-half of all U. S. businesses by the year 2000, and have a projected sales figure of $300 billion a year (CNN, 1992).

Of the 201 chief executives of the nation's largest companies polled by FORTUNE (Fisher, 1992), only 16% believe that it is likely they will be replaced by a female CEO within the next decade; their projection is that even after 20 years only 18% of CEOs will be female.

Conclusion

The future should not be bleak for women. More women will be in charge due to the increasing awareness of discrimination/bias issues, provisions being made for equal education and training programs, and the persistence of women dealing with the issues.

A glass ceiling does exist. Companies are beginning to recognize and address these barriers by developing diversity management programs, instituting equal management training programs, providing mentors, conducting workshops dealing with prejudices, and developing a variety of family-friendly benefits.

Women must also do their part. They must stop being naive, believing that hard work alone will be rewarded, and become corporate smart. Women must become adept at "playing the game" in the political arena. They must understand how the power structure really works—become visible, take on projects or tasks leading to further personal development, and locate and make use of a mentor.

Change does generate conflict. The female executive must help change the corporate structure while dealing with the relationships and roles of the traditional male executive. Women are becoming empowered; although it may appear to be slow in coming, progress is being made.

Corporate culture, politics, attitudes, and biases have held women back. Not only must the corporate business structure change, but so must the attitudes of both men and women change to include nonbias and nongender positions. Advocates of equality are working toward the goal that promotions be based on skill and achievement. "To survive in the competitive global economy, corporations cannot afford to waste valuable talent, male or female" (Fisher, 1992; CNN, 1992).

References

Aburdene, P. & Naisbett J.(1990). *Megatrend 2000.* New York: Random House.

CNN (Cable News Network). (1992, November). Beyond the glass ceiling, a special report. [video program].

Department of Labor. (1991). *The glass ceiling initiative*. Washington, DC. (ERIC Document Reproduction Service No. ED 340 653).

Fisher, A. B. (1992, September). When will women get to the top? *Fortune*, 44-48, 52, 56.

Freeman, S. J. M. (1990). *Managing lives—corporate women and social change*. Amherst: University of Massachusetts Press.

Friedman, D. E. (1988, July-August). Why the glass ceiling? *Across the Board*, 33-37.

Frusher, S. & Rountree, J. (1989). Fear of success in women—is there still such a phenomenon? (Report MF01/PC01, ERIC Document ED 339 274).

Morrison, A. M., White, R. P., Van Velsor E., and The Center for Creative Leadership. (1987). *Breaking the glass ceiling*. New York: Addison-Wesley Publishing Co., Inc.

Solomon, C. M. (1990, April). Careers under glass. *Personnel Journal*, 97.

Watts, P. (1989, November/December). Breaking into the old-boy network. *Executive Female*, 32-33, 66-67.

Using Focus Groups to Develop More Realistic Training

HARRIET GRIGGS
BARBARA STEWART
University of Houston

Increasing pressure is being exerted on the American educational system to provide more realistically trained workers (Drucker, 1989; Kenny, 1993). Increasingly sophisticated technology is being used in workplace applications, and this requires a more sophisticated preparation on the part of users as well as suppliers of the technology. Accusations have been made that higher education is not only neglecting the development of thinking skills, but that graduates are all too frequently not well prepared to take their place in the world of work. Determining the most valued skills for each job is an important problem for educational program planners as well as business and industry trainers.

Experience in educational programs has shown that it is risky to plan curriculum outcomes without consulting the constituent group the graduate of that curriculum will join. For example, an academic program that produces graduates whose goal is a career in a particular field needs the advice of professionals in that field when planning outcomes. Frequently training outcomes are obscured because the professionals involved do not know how to approach each other. Presented here is a method that is a blend of marketing technique and needs assessment theory that encourages collaboration The use of focus groups is a technique that has long been widely used in market research. This method adapts the use of focus groups for the planning problem of verifying needed outcomes. Although it was field tested in an academic merchandising program, it would serve a wide variety of training uses.

Using Focus Groups For Educational Purposes

Focus group research is essentially qualitative in nature. It represents a method for acquiring information not readily obtained by standard quantitative research designs. Ruddick, Sherwood, and Stevens (1983) describe a focus group interview as a variation of a depth interview conducted with a carefully selected group of participants. Breen (1977) commented that "Group discussions are used where new, fresh thinking is desired" (p. 152). A professional moderator focuses the group's discussion on a specific topic. Ruddick, Sherwood and Stevens (1983) recommend that the moderator follow "a discussion guide designed to lead the group toward answering the research question or accomplishing specific study objectives." The moderator starts with general questions. The questions are aimed at getting the respondents to express themselves—to reveal their opinions, experiences, and reactions" (p.44). For the purposes of this particular project, the discussion guide was a questionnaire based on a review of merchandising and needs assessment literature, and the moderator was one of the faculty in the merchandising program.

Methodology and Findings

The literature search that supported the questionnaire development for this project revealed that much has been written on the topic of what merchandising students should know, and that business leaders have been frequently asked to contribute their opinions.

BEST COPY AVAILABLE

The questionnaire developed for this project referred to the work of Sheldon (1986) and Gillespie(1960), and included other items of interest in this particular setting.

Four focus group sessions were organized and conducted. The focus group participants were selected from the populations from which specific information was desired. Group 1 was composed of Houston metropolitan area retailers, Group 2 of current merchandising students, Group 3 of merchandising alumni, and Group 4 of merchandising educators. Data were collected from each group at that group's meeting.

Data were collected in two ways. Participants completed the questionnaire which provided quantifiable data; then, in true focus group fashion, the questions were discussed. This discussion was taped. The questionnaires were tabulated and analyzed, and these results were compared to the taped discussions. The discussion was collapsed into phrases describing possible course content. A wealth of information was obtained.

Examination of five professional attributes: activities and leadership, grade point average, major in college, merchandising experience, and personality, showed that "personality" and "activities and leadership" were rated highly by all groups. It can be surmised that retailers might feel that training new employees specifically for a particular company would serve in lieu of experience, while personality factors including tendencies toward activity and leadership, are inherent qualities desirable for a successful merchandising career. Human relations was a strongly expressed need for all four groups. Concensus was also found concerning student needs for salesmanship training, included by the phrase "sales psychology and consumer behavior". One retailer succinctly described this need by saying managers needed to know how to motivate sales associates rather than know how to sell. Computer literacy and an internship were also universally approved. The expressed importance of an internship was not surprising because of the frequency with which the value of experiential learning was noted in the literature.

Implications for Practice

While there is nothing dramatically innovative about the use of focus groups, it offers a convenient method for encouraging collaboration among groups with widely varying perspectives. The fresh thinking provided by such groups can be very beneficial in any training or educational setting when outcomes are being planned, especially when the method for bringing these groups together is simple and efficient.

References

Breen, G.E. (1977). *Do-It-Yourself-Marketing Research*. New York: McGraw-Hill.

Drucker, P.F. (1989, May). How Schools Must Change. *Psychology Today*, pp. 19-22.

Gillespie, K.R. (1960). Retailing Executives Rate College Courses. *Journal of Retailing, 36*, 163-173.

Kenny, S. (1993). Using Business Leaders For Academic Planning. *Planning for Higher Education 21*, 21-26.

Ruddick, M.E., Sherwood, R.K., & Stevens, E. (1983). *The Marketing Research Handbook*. Engelwood Cliffs, NJ: Prentice Hall.

Sheldon, G. (1986) Attitudes of Retailers and College Educators Toward Fashion Retail Internship. *Clothing and Textile Research Journal, 4*. 9-15.

Empowerment: Using Groupware to Create an Anonymous Forum to Discuss Workplace Issues—Lessons Learned

SCOTT ROBERT HOMAN, Texas A&M University

Abstract

This paper explores the lessons learned when groupware was used to allow an anonymous, real time, unfiltered discussion of workplace issues, concerns, complaints, and praises. In order to get a more honest discussion about workplace issues, the case company customized Lotus Notes and opened up a total quality management discussion area, or database, that would allow anonymity regarding which e-mail account was submitting to the database.

Introduction

In a recent article Lee Th'e (1993) states that groupware such as Lotus Notes, "is a sophisticated platform on which a company or value added reseller can build truly powerful applications-encompassing electronic databases, e-mail gateways, customized bulletin boards; and much, much, more" (p.26). This paper explores the lessons learned when groupware was used to allow an anonymous, real time, unfiltered discussion of workplace issues, concerns, complaints, and praises. In order to get a more honest discussion about workplace issues, the case company customized Lotus Notes and opened up a total quality management discussion area, or database, that would allow anonymity regarding which e-mail account was submitting to the database.

This ongoing database of comments was available to all employees 24 hours a day at their desks and it allows for employees regardless of their rank in the corporate hierarchy, to express their views and opinions of corporate culture, management styles, decisions, policies, and office trends. In this division everyone from secretaries to senior management now had the opportunity to speak their honest opinion and can to do it without fear of retribution. The lessons learned will be of great interest to anyone who is undergoing or is planning to implement total quality management in their company and who would like to implement similar groupware technology as part of a total quality initiative.

Case Study Company Background

This paper will focus on a series of comments from the training division of a professional services organization. The case company has a sincere interest in the opinions and concerns of its employees due to its desire to pursue the Malcolm Baldrige Award for Quality. In a recent attempt for this award, the organization's application was rejected after the first round. The company focused on in the case study has a very high rate of turnover and is actively seeking to reduce turnover and enhance the quality of life for all its employees.

Objectives

The main objective of this paper is to expose the reader to the kinds of comments that can be generated once people feel that it can be done in a politically safe way. In discussions with the case company regarding the use of actual comments in this paper, the managers of the case company could not decide whether it was within their power to grant permission to use words and ideas that they do not know if they own. For this reason, and to protect the anonymity of the organization involved, this paper will use paraphrased descriptions regarding the anonymous comments that were submitted. The issue of e-mail ownership, and particularly anonymous e-mail, is a growing concern to many organizations and is sure to be a source of income for the legal profession for years to come.

The second objective of this paper is to show how all levels of the organization's hierarchy are able to contribute due to the anonymous capability and how this leads to voices being heard that may not normally be heard in a typical organizational study. Additionally, the paper will review some of the management reactions to the phenomena of open communication and will suggest things to consider before attempting a similar experiment.

The knowledge transferred via this paper will help anyone who is considering implementing a similar technology. The organization being reviewed did not intend for this groupware to become the open forum that it became, and therefore was not prepared for the amount and explicitness of the employees comments and feelings. Any company that opens the door for employees to reveal their true attitudes and feelings must prepare itself, because once this ball begins to roll it rolls very fast and is difficult to stop without direct management interaction or major organizational change. The initial opportunity to speak freely results in many of the original comments to be from a negative bent but as time moves forward the negative tone of the discussions decrease and productive and beneficial discussion increases.

Case Study — Comments

The first comment appeared under the heading of empowerment. This comment best shows how this technology allows an individual to offer professional constructive criticism to an organization. It is the author's professional opinion that the employee's feelings and ideas would have been self-suppressed without this new technology,and the individual who submitted this comment probably would have become a turnover statistic within a short period of time.

In this comment, the employee shares his/her concern that in spite of the organization's claims of hiring the best and brightest it treats new employees as "incompetent until proven otherwise," and does not assign tasks that utilize their skills, but instead assigns an abundant amount of administrative tasks to new hires. The employee adds that due to this policy the organization must hire consultants which results in excessive costs and in a brain drain when the consultants leave the organization. The employee goes on to add that if this policy is changed people may enjoy more job satisfaction and turnover would be reduced. The employee also suggests that more efficient use of peoples' skills will allow more work to get done with fewer resources which would reduce overall costs.

Many individuals responded to the comment described above. By reviewing a small selection of the resulting comments one can begin to see how this new technology works. As each member of the organization reads and responds, a series of checks and balances begins to take place. Over 50 replies stemmed from the initial comment. For the sake of brevity, this paper will review four entries that represent the variety of themes generated in response to the initial comment about the best and the brightest.

One of the first individuals to respond to the previous comment was someone who strongly agreed with the first comment. This second comment reiterates the first contributors assertion that the majority of work is unrelated to people skills. The second comment goes on to add that in spite of positive job evaluations the individual feels that they have continually been "put into a box". The author of the second comment adds that he/she is seriously considering going somewhere else to work where they "could contribute" and that they know of many other people who feel the same way.

The next two comments effectively show that not everyone in a company may share the same opinion. The third comment was labeled reality check. In comment three, the submitter took on an antagonistic tone and asked people to identify, "In what arena does one have the luxury of focusing on only what they were trained to do!" The submitter of comment three implied that the individuals who contributed the comments discussed previously were a bit naive and suggested that they should get some business perspective. Comment three was one of the first dissenting perspectives to appear on-line as a follow up to the best and brightest discussion. It received many replies that were primarily negative in their approach but a few replies did come back that thanked the submitter for bringing them back to reality. The fourth comment I will review is one such reply.

The author of comment four begins by thanking the author of comment three for the "reality check," and admits that perhaps may of the new employees are a bit disillusioned after coming right out of school. The submitter of comment four admits that they are a new employee and that "work is not as glamorous" as they thought it would be. Comment four, unlike the other comments, ends by suggesting specific action steps that could be taken to solve the perceived problems. Comment four is a clear example of how a system of checks and balances repeatedly revealed itself in this groupware forum. Before going on to another example, I would like to revisit comment three. In comment three the writer asked, "Just who do you professionals think you are?" It is important to note the writer's choice of the words. This choice of wording most likely indicates that the individual does not consider themselves to be part of that group. In the case company this most likely indicates that the writer is either an administrative support person or a representative of management.

With this in mind I would like to review a comment submitted by someone who claimed to be from an administrative position. One self-identified administrative person took offense that many of the professionals were talking about having to do administrative work and "the word administrative was rarely used positively."

In comment five the writer suggests that they see a "troubling undercurrent" where administrative staff are being put down. The writer of comment five adds that they "do not appreciate having their work made to feel as if it's beneath someone" simply because the other person holds an advanced college degree.

Comment five is a clear example of how someone who traditionally has not had the ability or authority to speak their mind can offer opinions and comments that will help bring about changes to increase the overall effectiveness of teams in a total quality program.

The last theme that appeared in response to the original best and brightest comment came from managers in the division. One manager admitted that he/she understood the fact that, "many new employees clearly experience a discrepancy between the reality of their position versus their assumption of what their position would be." The manager asked the employees to continue the discussion and focus on specific instances of problems and to make recommendations for possible solutions.

One interesting thing to note regarding the comment just discussed was that the manager did not identify him/her self. It can be assumed that the manager was not acting as a representative of all management but was acting as a concerned citizen of the workplace community.

Management Reaction

The management of the division that implemented this technology was caught off guard. The original intent of the anonymous groupware database was a place where employees could ask questions, but employees soon realized and took advantage of the opportunity to express and share their views, concerns and opinions. I do not think that management ever anticipated how open people would be if they thought that no one could

BEST COPY AVAILABLE

find out who was writing the comments. Because management did not pre-plan how they would respond, it took awhile for them to begin to respond effectively.

Another management response that is of a very interesting nature was a posting to the database that, "A way had been discovered to identify the authors of anonymous entries." The posting went on to say that during lengthy experiments a way was found that would work with a lot of luck and a large amount of time. The submitted comment stated that, "Management has no desire to track who is entering what," and "By unanimous agreement management decided that because trust was an important value, the users must be informed of the finding." According to the manager charged with the operation of the database, the individuals that found a way to identify contributers to the database were hackers who were not authorized by management, but since a process was found management decided that they had a moral obligation to let employees know about it.

Recommendations

The implementation of groupware technology as discussed in this paper can greatly benefit any organization that is serious about empowering their work force. But as Jonathan Grudin (1988) stated in an article in *Byte* magazine, "The ability for anyone to rapidly disseminate information (including rumors) can create new and not always welcome challenges for managers, whose jobs often involve managing and controlling communication" (p. 264).

Any organization that implements this kind of technology must prepare their managers and pre-plan how management will respond to both constructive criticism and to excessive praise. Excessive praise towards a specific group or individual may cause if much discontent as criticism as others in an organization come to feel less appreciated and/or isolated. Additionally, employees need to be informed as to what the corporation's expectations are regarding their use of this technology.

With a little forethought, and a willingness to share some of the power inherent in communication, this technology will allow a forum to grow and develop within any organization. As a forum grows it will undoubtedly lead to understandings and insights that will improve an organization's policies, procedures, and processes, and give credibility to the often used saying that human resources are an organization's most important asset.

References

Grudin, J. (1988, December). Groupware : Perils and Pitfalls. *Byte*, pp. 261-274.

Th'e, L. (1993, Apnl). Turn Your E-Mail into Groupware. *Datamation*, pp. 28-32.

Trainer as Leader: A Catalyst for Workplace Change

JOSEPH A. ILACQUA, Bryant College

Abstract

To meet the new challenges of global competitiveness, organizations must take action broadly and strongly enough to break the "tyranny of culture" on the shop floor. The trainer/engineer or trainer/manager dual role can prove to be most effective in making the trainer a catalyst for workplace change.

Trainer/engineer Don Riley explained the program he initiated at a manufacturing plant which was in transformation to a high-involvement organization and work cell arrangement: "[In my job] I look at how we make things, introduce new technology and new products and machine tools into the company. ... I carpool with another project engineer. We started discussing some of the problems with new technology, lack of skills in the workplace, ... and I thought it was long overdue to do something. There was a lot of frustration on the shop floor...." The workforce was evolving into "a bunch of button pushers" with technological knowledge concentrated in only three or four people. "We had an awful lot of downtime because you can't be everywhere at once." It was obvious that something had to be done to get the operators involved in problem-solving.

Responding to an increasingly competitive global market, companies have moved to the development of a high-involvement organization, delegating decision-making to production workers on the shop floor. Production workers' roles have been broadened to include decision-making responsibilities and authority commensurate with proper training and skills. The transformation of an established industrial workplace is one of the most challenging ventures in human resource development today. It involves redefining jobs and recasting the work environment to become more competitive. The primary focus of this study was to examine, in detail, an effort to restructure a workplace into what Lawler (1986) has called a "high-involvement" organization.

These changes mark a significant departure from the requirements and expectations of the old-style Taylor model, in which "managers are the ones who are expected to think, coordinate, and control" (Lawler,1992, p. 26). Firms are pressing workers to meet the special challenges of being better educated, thinking critically, working as members of a team, taking responsibility for problem-solving, and making decisions.

Conversion to high-involvement runs counter to the very basic message that has been given to workers and managers since the introduction of mass production. After decades of organization as a Tayloristic production line, the shop floor has developed a culture of its own. "Culture" is the pattern of basic assumptions developed as a group learns to cope with problems. When these assumptions work well enough to be considered valid, they will "be taught to new members as the correct way to perceive, think, and feel" (Schein,1985, p. 9). In a mature organization, leaders cannot change culture on their own. They must listen, in order to involve the group in reaching its own insight into the need for change and become willing to participate in the change. "[I]n the end, cognitive redefinition must occur inside the heads of many members of the organization and that will only happen if they are actively involved in the process" (Schein, 1985,. pp. 324-5).

Introduction of Work Cells

A production work cell, in this environment, is a set of machines and work stations grouped together to facilitate the flow of work on one product. That "product" is usually a

BEST COPY AVAILABLE

crucial part in a pneumatic tool assembly. A cell is run by a team of operators who, starting with basic inputs and using a variety of skills, perform all the tasks needed to turn out a completed end product. There are two to four workers per shift. Workers consider people staffing other shifts as all part of one team. Cell members are responsible and accountable for their output. As operators have gained experience, trainer Don Riley has encouraged the movement to an autonomous work group style of operation.

However, work cells do not necessitate high-involvement work or a unique competitive advantage. It is the parallel development and tie-in between the cells and education, along with shop floor ownership of the changes, that are significant. The workplace transformation meets Edgar Schein's (1985) sense of a change in culture. When production workers go to other departments looking for problems to solve, or when they analyze the news about hurricane damage in Florida and alert the foreman to change how work is scheduled, they have begun to think like managers. Shop floor members have developed new work values, new ways of viewing issues, new assumptions about the way things are done, and have learned new ways to cope with problems. This represents a change in organizational culture, as people on the shop floor have proclaimed their stake in the new marketplace. Their desire to be more directly involved in the transformation is more important than the workplace reorganization.

Trainer as Leader: The Workers' Perspectives

A trainee's perspective of Don Riley's interpersonal style is summed up in his words: "It gets you involved more...having Riley as an instructor. He's kind of a nut, he's a good guy, a good nut. He's kind of flamboyant and he don't take no crap. He'll listen to you and if he does something and you don't agree, he'll explain to you, why you do it this way. If you still don't agree, you tell him why and he listens...I think that's very important."

Riley's influence is credited with turning around the productivity of his work cell. This turn-around resulted not from finding a solution to the cell's problems, but rather, by his crafting power for the cell members. Problems with equipment and castings gave the cell the highest scrap rate on the shop floor. Now, they have one of the lowest. "He built up the confidence in yourself to do the job and to have someone listen...[You] can bitch to him about something and you get something done."

With the confidence their trainer instilled in them, workers took their problems all the way to the vice president level, winning the formation of a "process capabilities team". "Once a week, this team, which includes workers from the other shifts, meets to study one machine."

Leadership and Organizational Development

Workplace reorganization puts focus on the leadership role. Human resource management practices, important for any organization, are particularly critical when managing high-involvement workers. Practices must support the creation of a motivated, capable, involved workforce. In a team-based organization, it is important that all players have well-developed social skills and enjoy social interaction (Lawler, 1986, 1989, 1992). This is an apt description of Don Riley's style. He explains why and how he empowers a cell work team: "Six minds are always better than one. [T]he person that is involved...they can out-think everybody. You have to guide them. That's why I'm a part of those teams, but you can't run them over. I try to make sure that all I do is give them general guidelines. I give them the technical knowledge they need.... They know what is probably the best way to go. [W]e're just doing it smart, we're working smart."

Don Riley's Leadership Philosophy

Don's distinctive philosophy of leadership and conviction about the value and capability of human resources has made him a catalyst for change. He sees only one route to such success: that is, by constantly talking with them and communicating with them, understanding their goals and then helping them to be stellar performers. "I think being able to do your job right and well should be satisfying and that it should be fun." It is important that workers see their input as valuable. "Once you get that through everybody's head ...[you get] stellar performance."

In Don's view leadership tends to be a little chaotic, because each individual is an entity unto themselves. "They have their own little things that make them motivated, things that turn them off ...it's not that neat little thing." Don Riley establishes his leadership practice in an environment where constituents are tied together by mutual goals with high morale involvement, doing important and exciting work, solving shared problems in an entrepreneurial or leadership manner. In such a style, maintaining involvement and managing succession are basic leadership tasks (Schein, 1980). He takes special pride in the fact that the first cell members have been given "lead" status; that puts them on call for problem-solving and advice when other operators need help.

By volunteering to start the training program and to become the cell production engineer, Don created the work environment that best fits his leadership style. In training sessions, Don nurtures this climate by retaining a very open style, even when the study material is quite technical. He promotes teamwork both in the training class and on the shop floor.

Leadership and the Learning Experience

"[T]he best organizational change programs approach making changes as a learning experience" (Lawler, 1992, p. 345.) In an organization in transition, the learning experience is an evolving process, as shop needs change and workers' knowledge matures. Production workers begin to see skills and issues linked together in a macro span. They perceive their training as a source of responsibility and authority and their job as an important part of the company. They integrate their skills with the company change and with the change in the global economy. While there is a financial component to seeking knowledge, they also want to learn for learning's sake.

The impetus and enjoyment associated with the trainees' new skills and learning is self-motivated. The trainees are pleased with their knowledge and the use of their skills and with working and studying with others who have similar understanding.

Education, Not Training

Traditionally, much training has involved instruction in the simple tasks needed in a Tayloristic production process, with little interest in any learning beyond the acquisition of a required skill. Now the philosophy is toward a more participatory and skilled workforce, imbued with a sense of loyalty and commitment to the company's goals. As jobs become more complex and firms demand more flexibility from workers, greater emphasis is being placed on new learning skills and responsibility. Training must be judged in terms of empowering workers (Carnevale, 1991). This requires a binding of leadership and learning.

On a visit to the shop floor, where people are running half million dollar CNC (computer numeric control) machines that turn simple stock into complex finished product, it is obvious that workers are learning new techniques. The goal is to continually train workers as technology evolves (Ashburn, 1986; Beard, 1991).

The Introduction of the Training Program

There is a consensus on the shop floor that management made a mistake in assuming that new production technology would reduce the need for operator skill. An engineer, studying with the advanced class, told this story of the move to training. "They thought CNC [computer numeric control] machinery would end the need for a skilled workforce on the shop floor and it doesn't. If anything, it increases it in certain areas....it's a wonderful tool but you need good operators. They're not just button pushers, they have to be able to diagnose problems.... ...correct a problem and even get in and edit a program."

Shop wisdom is that training has been forced by the company. In Don Riley's view: "The need came from the shop floor.... I went [to the production workers] to find out just what to teach and where we wanted to go with the training. I got a lot of input from the individuals, who were running the process."

The Evolving Nature of the Learning

With the coming together of learning and leadership, training has been evolving as shop needs changed and knowledge developed. At this stage in their personal development, the majority of trainees wanted to keep learning. They were becoming "adult lifelong learners" with particular interest in what they see as their profession. John Dewey (1916) wrote, "Real education starts after we leave school and there is no reason why it should stop before death." In class, trainees were quick to offer both functional and hypothetical illustrations of the topic at hand. On the shop floor, machine operators read machine shop magazines while "baby sitting" their high tech equipment or while on break.

During class breaks and on the floor, trainees often talked about global competition and Japanese human resource practices. Public television and programs like "Sixty Minutes" were often cited as good sources of information. Trainees responded to questions on why they volunteered for the classes by saying, "You can never learn too much."

Learning Confidence

A goal of the trainer was to give the trainees confidence. The students revel in that directed confidence. They like to tell the class what has been going on, on the floor and how what they learned works.

A trainee shared this story with fellow members of the basic class during a break. We kept having these cap problems...ever since I've been in this department...13 years. Now, Don is telling us that, through studies, it doesn't matter if you've got...80% thread or 60% thread, the pull-out power is the same. So as soon as I learned this, I changed all my drill sizes, ...and never had a problem with the caps again. Now we can stop going by trial and error.

Don builds on the trainees' interest in their work by building practical application into his teaching. In the older machines controlled by punched paper tape, they were having problems with tapping aluminum magnesium. Class time was used to teach the students from that area how to determine the correct way of drilling and tapping aluminum magnesium and the correct tooling. Consequently, "They haven't had a broken tap in probably nine months"

Malcolm S. Knowles (1984) asserts that the best environment for adult learners is a non-authoritarian, less formal, cooperative atmosphere; the instructor's role is that of facilitator, catalyst and guide, in a process built around what the learners feel they need to know (Bell, 1989; Knowles, 1984, 1989; Zemke & Zemke, 1988). This would be an apt description of how Don Riley runs his training program.

Lifelong Learning

For adults, learning is usually not sought as its own reward, but as a means to an end. Yet, many adults do study for the sake of learning itself (Zemke & Zemke, 1981; Merriam & Caffarella, 1991). Among this group of self-selected trainees, learning for learning's sake and for gaining credentials or to help land a new job are of about equal weight.

One trainee was a ninth grade dropout because "School was boring and didn't have anything to do with life." After leaving school, she became pregnant and married. After two more children, she had become weary of household management. Her brother-in-law suggested she take a job as a packer. Work seemed to kindle an interest in learning for her. She completed her GED and worked her way into the training program. She is now a coordinator, taking responsibility for much of the production planning in her department. In an interview, she talked about Hurricane Andrew's effect on the demand for her department's products. Although the coming of Fall usually meant a cutback in hours worked in her department, she convinced the foreman that they should keep production levels up because of rebuilding that would be taking place in the South. She also trains operators on the shop floor and says she is in the program: "Because you never know too much. It's always good to learn something. I know my job, I know what I'm doing, but you can get stagnant .... I always volunteer to learn something new. You never know. It'll always come in handy sometime. Life doesn't end in that department. There's always a second step"

Production issues replaced sex and sports as break time topics according to one trainee: "They're allowed to use their minds a little bit, kicking the cobwebs out....These guys love this course, jogging and getting their minds active. They say, "Let me look and see what I'm really doing" versus "I'll just do it" They've caught a lot of things...that should be straightened out, where, without this course, they would have never.... [Before] it was 'If it works, it works' Now it's, 'It can be better why do it this way?' "

Effective Leadership Behavior

In the trainer's hands, leadership is much less a matter of direct action and hierarchical control than conventional shop floor behavior. In an organization transforming to high-involvement work, choices and decisions are often made in a very disconnected process. Power is more ambiguous and reactive. Influence is gained by understanding the way the game is played, building positive interpersonal relationships, and perhaps most importantly, assisting workers in inventing viable solutions to production problems. Without the old style, explicit, authoritative power, leadership requires the exercise of knowledge, team-building and subtle adjustment [Cohen and March, 1986].

Interactive Leadership

Rosener (1990) presents a view of the interactive leadership which describes Riley's style as well. In Riley's work relationships, he repeatedly encourages participation, shares information, enhances feelings of self-worth, and works to energize others. Perhaps the most impressive leadership aspect is the picture of equal status he paints of himself and subordinates. A stated prime goal of his effort is passing authority to the production worker.

As the workplace demands more shared authority, diversity and flexibility, the interactive leadership style may prove to be the most effective. His dual role, combined with his exceptional approach to leadership and conviction about the value and capability of human resources, has made him the catalyst effecting workplace change.

BEST COPY AVAILABLE

The Implications of Leadership

In addressing leadership as the management of cultural change, Schein (1985) writes of the need to break the "tyranny of culture" in a mature organization. This phrase is not excessive in the case of transforming a long-established Tayloristic organization to a high-involvement organization. For these suggested adaptive actions to effectively promote workplace change they must be fully and powerfully enacted. Organizational culture cannot be transformed if change is treated as the circumspect application of this year's buzzword concepts.

Conclusion

Charles Handy has written, "The new manager has to be teacher, counselor and friend, as much or more than ... commander, inspector and judge" (Handy, 1989, p. 104). This describes, almost perfectly, the teaching style, leadership style, philosophy and organizational position of the trainer of the group that is the focus of this study.

The trainer, as shop floor teacher, counselor and friend, gave the workers ownership in an effort to overcome shop floor frustration. This explains how "organizational change [which] is extremely difficult to produce" (Lawler, 1992, p. 346). can be effected. The drive to create a high-involvement organization has continued since the late 1960's. If one lesson has been learned, it is that "Meaningful organizational change is extremely difficult to produce"(Lawler,1992, p. 346.) Most of the successful high-involvement units have been greenfield plants, the "new plant approach". In these instances, high-involvement characteristics are built in from the start.

The phased-in transformation of an established workplace is the most common and most difficult of ventures. The degree of success that was achieved at the plant seems to be wholly attributable to the trainer/engineer's role as catalyst. Rev. William T. Cunningham of Focus: HOPE, the human rights organization that has become a bench-mark for workforce development, writes: "Training has to prepare a workforce to make change happen" (Albert, 1991).

References

Albert, M. (1991). We Can Break the Catch-up Syndrome. *Modern MachineShop*, 64 (3), 78-89.

Ashburn, A. (1986) People and Automation. *American Machinist*, 1, 98-112.

Beard, T. (1991). The Training Program That Never Ends. *Modern Machine Shop*, 64 (3), 88-95.

Bell, C. R., & Friends (1989). Malcolm. *Training and Development Journal*, 38-43.

Handy, C. B. (1989). *The Age of Unreason*. Boston, MA: Harvard Business School Press.

Knowles, M. S. (1989). *The Making of an Adult Educator*. San Francisco: Jossey-Bass.

Knowles, M. S., & Associates (1984). *Androgogy in Action*. San Francisco: Jossey-Bass.

Lawler III, E. E. (1986). *High-Involvement Management*. San Francisco: Jossey-Bass.

Lawler III, E. E. (1989). Substitutes for Hierarchy. *Incentive*, 39-45.

Lawler III, E. E. (1992). *The Ultimate Advantage*. San Francisco: Jossey-Bass.

Merriam, S. B., & Caffarella, R. S. (1991). *Learning in Adulthood.* San Francisco: Jossey-Bass.

Rosener, J. B. (1990). Ways women lead. *Harvard BusinessReview*,119-125.

Schein, E. H. (1980). *Organizational Psychology* (3rd ed.). Englewood Cliffs: Prentice-Hall.

Schein, E. H. (1985b). *Organizational Culture and Leadership.* San Francisco: Jossey-Bass.

Taylor, F. W. (1911). *The Principles of Scientific Management.* New York: Harper & Row.

Zemke, R., & Zemke, S. (1988). Thirty Things We Know For Sure About Adult Learning. *Training*, 57-61.

A New Myth Concerning Older Workers?

T. F. JACKSON, JR.

Abstract

This paper addresses a question rather than a position. The question is: "Is a new myth related to the training of older workers developing?" The question comes from the author's reflection upon the results of a qualitative research study and the literature review related to the study. The focus of the study was older worker training and support, and the potential myth concerns the need for special training conditions and methods for older workers. This paper presents a description of the study, the conclusions reached, a review of the literature related to the study, and a discussion of the question as the author views it.

Introduction

As you may surmise from the title, this paper presents a question rather than the statement of a conclusion. The question arose from the reflections of the author on the results of a qualitative research study and the literature review related to the study. First, the research study will be described, and this will be followed by a brief summation of the related initial literature review. Next, the study findings will be presented, followed by reflection and an expanded literature review. Then follows more reflection, conclusions of the study, and the development of the question that is the title of the paper.

Study Description

The purpose of the study was to develop a model for the training and support needs of older workers (defined as workers 50 years of age or older) of the Custodial Services and Landscape Maintenance areas of the Physical Plant, Texas A&M University (TAMU). The study was conducted using qualitative methods during the period September 1991-May 1992. The trustworthiness methodology advocated by Lincoln and Guba (1985) was followed during the study.

The primary data collection method was the interview, supported by researcher observation, referent documents and the collection and recording of critical incidents. Approximately sixty formal interviews were conducted during the study, and verbatim transcripts were provided to the interviewees for member checking before the material was used in the study. An extensive study context and thick description was constructed by the researcher by developing draft documents and having them reviewed for accuracy by knowledgeable individuals in the Physical Plant who were in positions to know both the background and current state of affairs within that organization. All parts of the context of the study document were reviewed for factual and contextual accuracy by no fewer than four individuals. An interesting element in the study context was nested "guerrilla" organizational development (OD) projects that were in progress during the period of the study and continued after the study was concluded. These were unannounced projects, with one relating only to the Custodial Services Branch within the Physical Plant, and the other relating only to the entire Physical Plant—no other organizational components of TAMU were involved. The descriptive term of "OD effort," as related to the activities within the Custodial Services area, was that developed by the researcher based upon observation and results of the initiated activities, and not a term used by those involved. The OD effort began in the Custodial Services area in the 1985-86 time frame, and is still evolving. The Director of the Physical Plant did verify to the researcher that an OD effort was underway for the Physical Plant, and that the OD effort was unannounced. The OD effort for the Physical Plant started soon after the current Director assumed his position in May 1990, and the effort is gathering momentum. Since the OD projects were unannounced and somewhat clandestine, the two primary organizational instigators were not aware of the scope of the other's effort, and they had not coordinated their efforts. Prototype model self directed work teams were implemented in parts of the Landscape Maintenance area as an activity of the Physical Plant OD effort shortly after the study was concluded.

The primary training methods used in Custodial Service and Landscape Maintenance were closely related to on-the-job training (OJT). Even though Custodial Services had developed a basic training program, the training methods used were basically structured OJT—instruction and performance of three-to-four trainees under the direct supervision of a trainer in a real work environment. Exceptions to the OJT type training were: (1) follow-on safety training (some of which was group instruction and video based in both areas); (2) preparation for the herbicide/pesticide applicator license exam training in Landscape Maintenance (which was group lecture type instruction); and (3) supervisory training (which was generally traditional classroom type instruction—an exception was Custodial Service supervisory training in their administrative procedures, which was in an OJT mode).

Initial Literature Review

The initial literature review concentrated on articles, papers, monographs and books which focused on the older worker and older worker training. Computer searches of automated data bases produced a significant quantity of sources for information on this subject area.

Several authors indicated that there was the general acceptance of a negative stereotype of older workers by employers—that older workers do not have the capability to learn new skills, accept change, or to perform at an acceptable level (Fyock, 1990; Hale, 1990; Rosen & Jerdee, 1985; Shea, 1991). These authors also rebutted the stereotype, indicating it did not reflect the true general reality of older worker capability. There was also an indication that the capability of older workers may vary significantly on an individual basis. Schaie and Willis (1986; Schaie, 1980) pointed out that a dimming of the senses and slowing of information processing capability did occur as a result of aging, and a gradual decline in intelligence in the form of "new learning" starting about the age of 60. This decline in "new learning" was somewhat offset by the continued increase in experience based (crystallized) knowledge well into the 80s. From an intelligence point of view, most older workers are just as capable as their younger counterparts. Sheppard and Rix (1977; Rix, 1990) emphasize that the capability of the individual should be considered rather than an individual's age as an estimate of potential productivity.

Yokomizo (1985) found that there was a decline in the range-of-motion and effectiveness in older factory workers where reaching was involved, but finger dexterity did not significantly decline. Giniger, Dispenzieri, and Eisenberg (1983) reported the results of an experiment measuring the dexterity and productivity of 667 garment workers on speed and skill jobs in an applied setting. Conventional wisdom is that older workers would not do as well on speed jobs as younger workers; however, in this case the older, more experienced workers were more productive than younger workers. Thus, in some instances, experience and long term developed physical skills may be more productive than the speed and stamina of youth.

The literature identified the old myth concerning older workers as being that older workers cannot learn, resist change and are not as productive as their younger counterparts. The literature also refuted the myth, indicating that, with the exception of certain jobs which require strenuous physical activity, older workers perform as well, or better, than their younger counterparts.

It is in the area of training older workers that it appears a new older worker myth may be evolving. Knowles (1970, 1980) indicated adults present four characteristics to a learning situation that makes them different from non-adults. These characteristics are: (1) self-directedness, (2) with a reservoir of experience, (3) plus an orientation consistent with their social role and status, and (4) a propensity for immediacy in applying desired learning. He adopted the term "andragogy" (meaning the teaching of adults) for the name of his concept. Feuer and Geber (1988), commenting upon the application of Knowles' concepts to the training and development environment, indicated that only the experience aspect seemed to hold up in all training and development situations. Knowles (1989) acknowledged that andragogy is probably not appropriate for all training situations—indoctrination, safety training, machine operations, introduction to a new field of knowledge, and the like. However, he stated: "Whenever more complex human performances are involved, especially those requiring judgment, insight, creativity, planning, problem-solving, self confidence and the like, I think self-directed learning is appropriate" (p. 93).

Early examples of the concept that older adults need a learning environment considered to be different from their younger counterparts comes to us from Okun (1977) and Bolton (1978) and traditional adult education. Okun (1977) reviewed the geropsychological research and provided 36 considerations for older adult instruction divided into 10 variable groups. Bolton (1978) identified the cognitive and noncognitive deterrents for older adult learning. Sterns (1986) provided an early identification of the different learning environment characteristics necessary for the training of older workers. Sterns and Doverspike (1988, 1989) have reiterated this position, and they have been supported by Goldstein (1989) and Goldstein Gilliam (1990). The American Association of Retired Persons (AARP) (1988) and the American Society of Training and Development (ASTD) (1988) published pamphlets that identified training and development methods and procedures best suited for older workers. Fyock (1990), Hale (1990) and Shea (1991) authored books which identified the training and development procedures best suited for older adults. Jamieson and O'Mara (1991) advocated treating older workers as one of the elements of a diverse workforce. AARP(1988), London and Bassman (1989), Hale (1990) and Shea (1991) advocated the use of discovery learning (Belbin, 1970) whenever possible when training older workers. Sterns and Patchett (1984), Sterns and Doverspike (1988, 1989), AARP (1988), Hale (1990), Fyock (1990) and Jamieson O'Mara (1991) placed an emphasis upon career planning for, and counseling of, older workers. It would seem that different methods would be indicated for the training and development of older workers.

The recommended training environment and instructional methods advocated for older workers are relatively consistent among these authors, and can be summarized as follows under six categories:

- The training environment should be comfortable, well lighted, and without visual or noise distractions. Whoever arranges the training environment should be sensitive to possible sensory deficits of older workers.
- The curriculum should be job related and structured in small, progressive, logically arranged, hierarchical modules or segments. Success should be built into the completion of each segment, and each segment should be mastered by the trainee before going on to the next segment. Time restrictions on the training should be avoided, and each trainee provided sufficient time to practice and reinforce the newly acquired knowledge and skill. Use self paced, interactive instruction when possible. Allow trainee participation in developing the training when feasible.
- Use presentation methods appropriate to the subject matter concerned. Use several methods of instruction to accommodate various trainee learning styles. One recommended sequence of presentation begins with the related theory or "why," followed by a

demonstration of the process or procedure, followed by performance of the trainee under supervision, followed by trainee performance on their own until the desired level of proficiency is reached and the learning is reinforced. The use of discovery learning is also recommended where appropriate.

- Do not rush the training—allow adequate practice time for all trainees. Use advanced organizers and provide trainees with written handouts and memory aides. The use of peer instructors is also recommended.
- Avoid shiny training aids that produce glare.
- Trainee motivation activities should include informing the trainee what will occur and why it is to his or her advantage to acquire the knowledge or skill to be presented, and interactively developing with the trainee performance objectives along with determining how performance will be measured. Bandura's (1986) self-efficacy concept should be an important consideration in trainee motivation.
- Relate new training to trainee experience and what the trainee already knows. Where new knowledge and skills are concerned, provide transition and anchors or hooks through which the trainee can follow the logic of the new information and methods and relate them to past experience to assist in the achievement of the desired training objectives.
- Appraisal methods should use trainee performance and avoid formal testing as much as possible. Pre-training assessment is necessary to determine the knowledge, skill and ability (KSA) of the trainee as a starting place for the training. Start the training where the trainee is. Follow-on appraisal should determine the effectiveness of the training and whether the training objectives were achieved. Appraisal should be an interactive process with the trainee involved. We will return to consider these recommendations for older worker training after considering the findings of the research project.

Research Findings

The findings of the research project which have specific bearing upon the "new myth" question were as follows:

- OJT type training was advocated by all interviewees to be the training method of choice for developing job skills in the Custodial Services and Landscape Maintenance areas.
- Older workers were somewhat preferred over their younger counterparts. Older workers were considered to be trainable, would change (though there was a tendency for some of them to resist change), were more dependable than their younger counterparts, and were just as productive (if not more so) than their younger counterparts. Individual differences were recognized, and the ability and willingness to do the job were the more important selection criteria—age, per se, was not a very important selection consideration.
- All interviewees (older workers, supervisors, managers, and trainers) indicated that older workers and younger workers should receive exactly the same training for the same job (Jackson, 1993).

It was this last identified finding that started the reflective process which resulted in the question which is the title of this paper. This finding appears to be counter to the published literature on the subject of older workers. Did the researcher miss something—either in the literature review or the research? Glaser's (1989) charge to researchers to attempt to disconfirm research findings and conclusions comes to mind. Further consideration was necessary.

Follow-on Literature Review

An enlarged literature review followed the initial review of the research study findings. Primarily, the focus of this later literature review was to explore the context and environment in which older worker training was conducted in the real world of work—the arena of the professional trainer practitioner. Although the arena of the practitioner was the focus, both research and practitioner literature were included in the expanded review.

One of the first things that becomes obvious when reviewing the larger body of training and development literature is that the quantity of literature related to the older worker is rather small when compared to the whole. There is a lot of emphasis on on-the-job learning; however, it is a general across-the-board consideration, not isolated to older workers. For example the series of books resulting from the Department of Labor (DOL)/American Society for Training and Development (ASTD) study of the training and development area in business and industry do not specifically mention the training of older workers as a separate part of the training and development opportunity (Carnevale, Gainer, & Meltzer, 1990a; Carnevale, Gainer, & Meltzer, 1990b; Carnevale, Gainer, & Schultz, 1990; Carnevale, Gainer, & Villet, 1990). The focus of determining training and development needs in the world of work seems to be on needs assessment resulting from organizational analysis, task and KSA analysis, and person analysis—all related to the job to be done (Goldstein, 1986). It is true that Goldstein's later work (1989; Goldstein and Gilliam, 1991) did include specificity on the training of older workers, generally supporting the position taken by Sterns (1986; Sterns & Doverspike, 1988, 1989); however, when viewed in the context of the overall volume of training and development related literature, it is rather overshadowed.

Reflection

The researcher's conclusion, after reflecting upon the research findings and the enlarged literature review is that the training need is driven by the requirements of the job and the KSA of the individual—not the age of the worker involved. Older workers compete in a work arena with their younger counterparts, and must be competitive in successfully completing training as well as in productivity. If this is so, what about the recommendations for training older workers that were previously identified in this paper?

The key to this question appears to be contained in a couple of passages: "Any training program might be successful if properly developed and that careful development of the entire training program is the most important parameter for successful training of the older adult worker, irrespective of the actual training techniques used" (Sterns, 1986, p. 100), and "We know that older workers can be trained, and we know how to train them, but it is still difficult to point to methods that operate differently for older workers" (Sterns & Doverspike, 1989, p. 311). In other words, good instructional design produces good training results. A review of the recommendations for training older workers previously identified indicate they are good recommendations for training anyone—just good instructional design and methodology.

Study Conclusions

After reflection on the complete literature review and research findings, the conclusions of the research study were developed. Those conclusions related to the subject of this paper were as follows:

1. The training, development and support needs of older workers cannot be considered in a stand alone mode. They must be considered in the environment in which the older workers compete.
    a. The best way to prevent older workers with obsolete skills is to provide appropriate skills training for younger workers throughout their work life continuing the skills training as they become older workers a long as they are on the job. This is the basis for the training and support models developed during this study, which include training and development activities for all workers, not just older workers. The basis for training is the job to be performed, and consideration for the older

BEST COPY AVAILABLE

worker must be made in that context. The literature concerning the training and support of older workers presents somewhat of an exclusive aura, when the reality of the work environment is that it is inclusive of all of those who participate. Without exception, every individual interviewed for this study indicated that older workers and younger workers should receive the same training in the same way for the same job. Older workers must continue to be trained as long as they remain on the job to prevent skills obsolescence. It is the job that dictates the training.

   b. The training conditions and methods that are advocated for older workers, under closer inspection, are appropriate for the training of all workers. As Sterns and Doverspike (1989) point out, "We know that older workers can be trained, and we know how to train them, but it is still difficult to point to methods that operate differently for older and younger workers " (p. 311).
   c. In addition, the use of different training conditions and methods to train older workers could produce the perception of favoritism and possibly reverse discrimination.
   d. Implication for practice: Consider older workers in the work environment in which they compete, and develop and implement training programs for all workers based on job requirements, using the conditions and methods recommended in the literature as appropriate for older workers.

2. On-the-job training (OJT) is appropriate for teaching work place skills. There is a need for "structured" OJT to insure the quality and consistency of the training received. This conclusion forms the basis for the training and support advocated in the models developed during this study. All of those involved were familiar with OJT, and Custodial services had developed a way to structure the OJT for consistency and quality.
   a. OJT is the most used method of providing training for job skills (Carnevale et al. 1990a). The greatest majority of those interviewed for this study indicated a preference for one-on-one OJT for job skill training. OJT was indicated in several interviews as the "best" and most effective training experience during the work-life of the individual being interviewed. The OJT methodology is appropriate to the concrete conceptual ability of the individuals working at the lower levels of the occupational scale, yet it provides the capability for adaptation if a more abstract conceptual capability is demonstrated by the trainee. The literature also indicates that much OJT is probably ineffective (Goldstein, 1986). That brings us to the next consideration for OJT.
   b. A structured form of OJT is needed in order to ensure both the quality and consistency of the training (Rothwell & Kazanas, 1990a, 1990b, 1990c, 1991). A good example of structured OJT was observed in the Custodial Services Basic Training Program during the study. The Training Assistants performed as full-time trainers, but the training method was OJT style in a real-world cleaning environment. All those who function as trainers in the OJT style must both know the job well and understand how individuals learn. Thus, there is a need for train-the-trainer training for those who provide OJT.
   c. Implication for practice: Consider OJT as an effective job skill training method, but provide structure to the OJT and proper training of those who will deliver the OJT in how to provide the OJT. Train-the-trainer training in how an individual learns and a knowledge of the various learning styles is indicated. Emphasis should be made on the trainee learning, rather than the trainer teaching. (Jackson, 1993, pp. 487-488).

Further Reflection

Continued reflection on the literature review and study findings and conclusions brought to mind the question that is the subject of this paper: Are we developing "A New Myth Concerning Older Workers?" My thinking indicates that we probably are; however, more research is indicated before this tentative conclusion can be accepted. The research focused on the lower level of the occupational area. Would the outcome have been different if the focus had been on the upper area?

It is conventional wisdom that the senses dim and the information processing capability slows with age. It is conventional wisdom that there is a wide variety among the capabilities of individuals who are the same chronological age. It is conventional wisdom in the workplace that training needs result from the requirements of the job and the KSA of the workers involved. It also appears that older workers respond better to training which conforms to those recommendations made by authors for the training of older workers; however, so do their younger counterparts. These appear to be general recommendations for good instructional design and methodology, and not just for the training of older workers.

If we continue to emphasize the need for special training requirements for older workers, are we supporting a myth that neither reflects the actual practice nor the need in the real world of work? All training should have good instructional design and appropriate training methods. The age of the trainee just happens to be something that the trainee brings to the training program, and trainee age is not, per se, a hindrance to learning. Instead of focusing on the special training needs for older workers, should we not be focusing on the need for good instructional design and the use of effective training methods in all training situations? Further research appears to be necessary to determine whether a new myth concerning older worker training is really developing.

References

AARP. (1988). How to Train Older Workers. Washington, DC: American Association of Retired Persons. ASTD. (1988). *Training older workers.* Alexandria, VA: American Society for Training and Development.

Bandura, A. (1986). *Social foundations of thought and action.* Englewood Cliffs, NJ: Prentice-Hall.

Belbin, R. M. (1970). The discovery method in training older workers. In H. L. Sheppard (Ed.), *Toward an industrial gerontology* (pp. 55-60). Cambridge, MA: Schenkman.

Bolton, E. B. (1978). Cognitive and noncognitive factors that affect learning in older adults and their implications for instruction. *Educational Gerontology: An International Quarterly,* 3, 331-344.

Carnevale, A. P., Gainer, L. J., & Meltzer, A. S. (1990a). *Workplace basics: The essential skills employers want.* San Francisco: Jossey-Bass.

Carnevale, A. P., Gainer, L. J., & Meltzer, A. S. (1990b). *Workplace basics training manual.* San Francisco: Jossey-Bass.

Carnevale, A. P., Gainer, L. J., & Schultz, E. (1990). *Training the technical work force.* San Francisco: Jossey-Bass.

Carnevale, A. P., Gainer, L. J., & Villet, J. (1990). *Training in America: The organization and strategic role of training*. San Francisco: Jossey-Bass.

Feuer, D., & Geber, B. (1988). Uh-oh . . . Second thoughts about adult learning theory. *Training*, 25(12), 31-39.

Fyock, C. D. (1990). *America's work force is coming of age*. Lexington, MA: Lexington Books.

Giniger, S., Dispenzieri, A., & Eisenberg, J. (1983). Age, experience, and performance on speed and skill jobs in an applied setting. *Journal of Applied Psychology*, 3, 469-475.

Glaser, R. (1989). *The fourth R, the ability to reason*. Washington, DC: Federation of Behavioral, Psychological and Cognitive Sciences.

Goldstein, I. L. (1986). *Training in organizations: Needs assessment, development, and evaluation* (2nd ed). Pacific Grove, CA: Brooks/Cole.

Goldstein, I. L. (1989). Critical training issues: Past, present, and future. In I. L. Goldstein (Ed.), *Training and development in organizations* (pp. 1-21). San Francisco: Jossey-Bass.

Goldstein, I. L., & Gilliam, P. (1990). Training system issues in the year 2000. *American Psychologist*, 45(2), 134-143.

Hale, N. (1990). *The older worker: Effective strategies for management and human resource development*. San Francisco: Jossey-Bass.

Jackson, T. F. (1993). Development of a training and support program for older custodial and landscape workers. Unpublished record of study, Texas A&M University, College Station, TX.

Jamieson, D., & O'Mara, J. (1991). *Managing workforce 2000: Gaining the diversity advantage*. San Francisco: Jossey-Bass.

Knowles, M. S. (1970). *The modern practice of adult education: Andragogy versus pedagogy*. New York: Association Press.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*. Chicago: Follett.

Knowles, M. S. (1989). *The making of an adult educator: An autobiographical journey*. San Francisco: Jossey-Bass.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic research*. Newbury Park, CA: Sage Publications.

London, M., & Bassman, E. (1989). Retraining midcareer workers for the future workplace. In I. L. Goldstein (Ed.), *Training and development in organizations* (pp. 333-375). San Francisco: Jossey-Bass.

Okun, M. A. (1977). Implications of geropsychological research for the instruction of older adults. *Adult Education: A Journal of Research and Theory in Adult Education*, 27, 139-155.

Rix, S. E. (1990). *Older Workers*. Santa Barbara, CA: ABC-CLIO.

Rosen, B., & Jerdee, T. H. (1985a). *Older Employees: New roles for valued resources*. Homewood, IL: Dow Jones-Irwin.

Rothwell, W. J., & Kazanas, H. C. (1990a). Planned OJT is productive OJT. *Training & Development Journal*, 40(10), 53-56.

Rothwell, W. J., & Kazanas, H. C. (1990b). Informal learning in the workplace. *Performance & Instruction*, 29(3), 33-36.

Rothwell, W. J., & Kazanas, H. C. (1990c). Structured on-the-job training as perceived by HRD professionals. *Performance Improvement Quarterly*, 3(3), 12-25.

Rothwell, W. J., & Kazanas, H. C. (1991). Informal learning—Part II: How do managers develop cross-functional knowledge without planned job rotations? *Performance & Instruction*, 30(3), 6-10.

Schaie, W. K. (1980). Age changes in intelligence. In R. L. Sprott (Ed.), *Age, Learning Ability, and Intelligence* (pp. 41-77). New York: Van Nostrand Reinhold.

Schaie, W. K., & Willis, S. L. (1986). *Adult development and aging* (2nd ed.). Boston: Little, Brown.

Shea, G. F. (1991). *Managing older employees*. San Francisco: Jossey-Bass.

Sheppard, H. L., & Rix, S. E. (1977). *The graying of working America: The coming crisis in retirement-age policy*. New York: The Free Press.

Sterns, H. L. (1986). Training and retraining adult and older workers. In J. E. Birren, P. K. Robinson & J. E. Livingston (Eds.), *Age, health, and employment* (pp. 93-113). Englewood Cliffs, NJ: Prentice-Hall.

Sterns, H. L., & Doverspike, D. (1988). Training and developing the older worker: Implications for human resource management. In H. Dennis (Ed.), *Fourteen steps in managing an aging work force* (pp. 97-110). Lexington, MA: Lexington Books.

Sterns, H. L., & Doverspike, D. (1989). Aging and the training and learning process. In I. L. Goldstein (Ed.), *Training and development in organizations* (pp. 299-332). San Francisco: Jossey-Bass.

Sterns, H. L., & Patchett, M. (1984). Technology and the aging adult: Career development and training. In P. K. Robinson, J. E. Livingston & J. E. Birren (Eds.), *Aging and technological advances* (261-277). New York: Plenum.

Yokomizo, Y. (1985). Measurement of ability of older workers. *Ergonomics*, 28, 843-854.

The Effects of Goal Setting and Two Methods of Goal Origin in Transfer of Time Management Training to the Job

MILDRED BUNCH LANGSTON, University of New Mexico

Abstract

This study investigated the effects of a goal setting addendum used to transfer time management behaviors. Differences generated by assigned goals, self-set goals and no goals were sought with the prediction that self-set goals would produce the highest commitment, the most behavior change and the most success at reaching the goal set in the addendum. The only supported prediction was commitment. However, trends in the direction of all other predictions were detected. Also, changes in behavior as a result of the training alone were shown on pre-post tests completed by both goal-setting groups and the control group.

The goal-setting literature generally supports the positive effects of setting goals, but the debates continue as to what method of goal setting, i.e., goal origin, is most effective. (Locke and Latham, 1990). However, only a limited amount of research has looked at the results produced by goals set at the end of a training experience for the purpose of facilitating transfer of the training to behavior in the workplace. The need for more empirical studies documenting methods of transferring training has been noted by several authors (Baldwin and Ford, 1988, Gist, Bavetta, and Stevens 1990; Wexley and Baldwin, 1986) Further, a need for more studies evaluating time management training, in particular, has been mentioned by others (Hall and Hursch, 1982; Slaven and Totterdell, 1993). This study addresses all those needs.

In a three by three design, differences generated by assigned goals, self-set goals and no goals were investigated. Outcomes were measured using the criteria for the first three of Kirkpatrick's (1983) four levels of evaluation. The effect of goal commitment was investigated with Hollenbeck's construct validated measure of goal commitment (Hollenbeck, Klein, O'Leary, and Wright, 1989).

A two-session course in time management training held in a health maintenance organization, an engineer consulting firm and for a variety of professional workers, was used as the situation for investigation. A control group was administered the same pre/post tests and the same training the experimental groups received. However, they did not participate in the post-training goal setting experience, or the goal commitment and report of goal success measure both goal setting groups completed.

Significance of the Issue

Although human resource personnel tend to favor employee involvement in goal setting, believing that this will produce greater commitment and better performance (Feldman, 1981), it takes more time and this means more cost. Since it is important for HR to justify procedures that cost more, those responsible for training need to know what type of goal setting is more effective for transferring training to the job.

Background

A continuing debate among goal setting researchers on the merits of assigned versus participatory or self set goals was reported in Locke and Latham (1990) and updated in Latham and Locke (1991). These theorists claim that goals assigned by an experimenter or leader in the workplace work as well, if not better, than self-set goals in improving performance.

Meanwhile, other experiments, such as Erez and Arad (1986) and Erez and Early (1987) were showing greater commitment and better performance for self-set goals.

These last citations, along with others, indicate that self-set goals may be more appropriate for more complex tasks such as time management behaviors (Campbell and Gingrich, 1986; Hollenbeck, Williams and Klein, 1989). Moreover, authors of conceptual articles (Feldman, 1981) along with others who have reported empirical studies, have suggested that involvement in setting goals, is more appropriate than assigned goals in training situations (Gist et al., 1990; Wexley and Baldwin, 1986).

Of the handful of studies that tested the use of goals as a tool for training transfer, only one investigated different methods of goal origin along with a control group. In a transfer addendum for time management training with college students as subjects, Wexley and Baldwin (1986) found both self-set and assigned goals were superior to self-management and control conditions. Even when they did not consider goal origin, studies on transferring cognitive and affective learning, along with studies of goals used to enhance task performance, almost universally have found that specific, as opposed to "do your best" goals, were most helpful.

Research Design and Hypotheses

To test the value of participation in goal setting for training, an example of a complex situation, this study set up a transfer addendum at the end of a two session time management course. The researcher/trainer assigned a specific goal to each Group 1 member and asked individuals in Group 2 to set a goal for transferring a newly learned time management behavior to the job. Group 3 participated in the training, but not the transfer addendum. The primary dependent measure was self-report on a time management survey completed before the training, and again two months later by all three groups.

The following hypotheses were tested: (1) Both groups who return to work with specific goals will obtain higher scores than the control group who return to the job without goals. (2) Group 2, who set their own goals, will obtain the highest scores on the dependent measure described above. (3) Group 2 will show higher levels of goal commitment as measured on Hollenbeck's measure of goal commitment (Hollenbeck et al., 1989). (4) Group 2 will rate themselves (2 months later) as having reached more success at reaching the specific goal set in the addendum.

Methods

Subjects

A health maintenance organization and an engineering consulting firm supplied 50 of the 65 participants who volunteered for time management training and agreed to participate in the study. Remaining volunteers were government workers, teachers, or from the private sector and included supervisors ($\underline{n} = 28$), as well as non-supervisors ($\underline{n} = 37$). Many of the latter group filled coordinating or group leader roles. Of the 58 subjects who completed both sessions of the course, 56 (22 supervisors, 34 non-supervisors) returned all dependent measures pertaining to the hypotheses. This final subject cohort included 34 females and 22 males.

Procedures

Eight identical two session time management courses were offered and participants were randomly divided into groups 1, 2 and 3 in each course offering. Each session was three hours long, with the second session occurring one week after the first session. The course design, which had been tested on over one thousand prior participants, covered standard time management skills, but emphasized changing personal habits to achieve better results. It was taught by the researcher, who has over twelve years experience as a time management trainer in both the public and private sectors.

Procedure For Goal-Setting Addendum

Immediately after the second session of the course, subjects in Groups 1 and 2 participated in a 30 minute transfer addendum. Prior to this addendum, the trainer had prepared a packet for each individual. Members of Group 1 each received a specifically assigned goal based on time management problems the individual had mentioned during the course. Group 2 were directed to set their own goal. Through observation and consultation at the primary research site, a typical goals list, which could be supported by the organizational culture, had been developed and was used as a guideline for assigning goals to Group 1.

After goals were assigned (or chosen by participants in group 2) all subjects were asked to complete a Goal Action Plan showing their planned steps for achieving the goal and a particular reward they would allow themselves, or could imagine receiving from such achievement. Also, copies of the Time Management Survey participants had completed at the beginning of the course were given to members of each group with specific instructions. (See Appendix A for these and other materials used in this goal setting addendum.)

Dependent Measures

Instruments described below are in Appendix B. All participants recorded opinions (Kirkpatrick's reaction level) and showed their cognitive understanding of course content (Kirkpatrick's learning level) immediately after the training. They completed The Time Management Survey immediately before the training and again two months later, thus providing a measure of Kirkpatrick's behavioral level. A separate version for supervisors and non-supervisors was developed for the learning and behavior measures. Only subjects in the goal setting groups completed Hollenbeck's Goal Commitment Measure (immediately after the goal setting addendum) and the Post Measure for Goal Action Plan to record their success at reaching the particular goal from the addendum (two month later).

Results

To test the first hypothesis that setting goals would produce a higher score on the behavior change post-test than not setting goals, a repeated measures analysis of variance was used. This procedure allowed individual pre-scores to be paired with corresponding post scores while looking for interaction across groups.

In Table 1 the P value of <.1037, F = 2.366 (df 2, 53) indicates some interaction attributable to group treatment, but not at a significant level. Thus the first two hypotheses, i.e., that goals would produce better results than no goals and that self-set goals would produce the most behavior change, were not supported. However, the repeated measure of pre-scores with post-scores showed a highly significant difference at P < .0001, F = 37.231 (df 1, 53) indicating that the training, if not the treatment, produced clearly measurable changes.

Table 1 Repeated ANOVA of Pre and Post Behavior Across Groups

Source:	df:	Sum of Squares:	Mean Square:	F-test:	P value:
Group (A)	2	2.19	1.095	2.338	.1064
subjects w. groups	53	24.827	.468		
Repeated Measure (B)	1	3.986	3.986	37.231	.0001
AB	2	.507	.253	2.366	.1037
B x subjects w. groups	53	5.675	.107		

BEST COPY AVAILABLE

Table 2 presents means for each groups pre-test and post-test and the differences between these Comparisons from pre to post and across groups may be noted. Since the difference score was greatest for Group 2, and second greatest for Group 1, a trend in the direction of both the first two hypotheses is shown.

Table 2 Group Means and Differences from Pre to Post Behavior

Groups		PreBehav	Post Behav	Differences Pre-Post
1.	Assigned^a	3.21	19 3.58	.37
2.	Self-set^b	3.10	18 3.65	.55
3.	No goals^a	3.57	19 3.77	.20
Combined		3.29	3.67	.38

^{a}n = 19 ^{b}n = 18

Effects of Goal Origin on Commitment and Goal Reached

It was predicted that Group 2, who set their own goals, when compared with Group 1, who were assigned goals, would show higher levels of goal commitment as measured on Hollenbeck's measure of goal commitment and would also show more success in reaching their goal two months after the training concluded. An unpaired t test was used to look for significant differences in group means at the .05 level (one-tailed) for both these predictions.

Table 3 presents the results regarding commitment scores as the dependent variable and shows significant difference between means at P < .0463. Hypothesis three was supported.

Table 3 T Test of Groups 1 and 2 on Goal Commitment (one-tailed)

Unpaired t-Test X_1: Group Y_1: Goal Comm

DF:	Unpaired t Value:	Prob. (1-tail):
35	-1.729	.0463

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Group 1	19	28.579	3.22	.739
Group 2	18	30.278	2.718	.641

Regarding goal reached, a one tailed P < .19 (Table not shown) indicated hypothesis four was not supported. However, a mean of 3.47 for the assigned group compared to 3.78 for the self-set group on goals.

Also regarding goal reached, Table 4 presents the distribution of scores by goal-setting condition. The greater variance in assigned group responses shown here corresponds with the SD of 1.32 and .65 for groups 1 and 2 respectively.

Table 4 Success at Meeting Goal[a] By Group

INDICATED LEVEL OF SUCCESS	ASSIGNED	SELF-SET
	Number of Responses	
Top Level (4 or 5)	10	12
Middle Level (3)	5	6
Bottom Level (1 or 2)	4	0
Total Responses =	19	18

[a] Measured by response to question 5 on the Post-Measure for Goal Action Plan which reads:

To what extent have you met the goal set at the end of the workshop?

5 4 3 2 1

Fully Met Goal No progress

Toward Goal

Correlation of Kirkpatrick's Evaluation Levels

Table 5 shows the correlation of Kirkpatrick's evaluation levels to each other. The instruments used are in Appendix B. Reac-overall concerns participant reaction to the time management training (parts A and C combined on the Reaction Evaluation) while Reac-envir records subject's feeling about support back on the job for new time management behavior. The strongest positive correlation is r = .63 for pre-behavior and post-behavior scores, which is "highly significant" per Wallen and Fraenkel's (1991) criteria. Second is r = .473 for the reaction overall score with the reaction-environment score, thus indicating some internal consistency for this instrument. Values on the matrix were confirmed by a multiple regression which yielded an R-squared of .48 for pre-behavior, learning and reaction-environment, in that order, for predicting post-behavior scores.

Table 5 Correlation Matrix of Kirkpatrick's Levels for All Subjects

Correlation Matrix for Variables: X_1 ... X_5

	Learning	Reac-Overall	Reac-Envir	PreBehav	PostBehav
Learning	1				
Reac-Overall	.155	1			
Reac-Envir	.034	.473	1		
PreBehav	.091	.062	.3	1	
PostBehav	.294	.185	.347	.63	1

Note: 2 cases deleted with missing values.

BEST COPY AVAILABLE

Supplemental Analyses

Although analyses of variance were run with group as the independent variable and each of Kirkpatrick's evaluation measures as dependent variables, no significant differences were found between group means except pre-test behavior as shown in Table 6. The difference between Groups 2 and 3 accounts for the P at < .0165 as revealed by post hocs with a Scheffe F-test of 4.02 (df 2, 53).

Table 6 ANOVA of Group Means and Pre-test Behavior Scores

Analysis of Variance Table

Source:	DF:	Sum Squares:	Mean Square:	F-test
Between Groups	2	2.277	1.138	4.439
Within Groups	53	13.593	.256	p-.0165
Total	55	15.87		

Content Analysis

A content analysis of subjects' goal action plans, combined with an analysis of statements on the Post Measure for Goal Action Plan and a comparison of that plan's ratings on goal reached, showed that subjects who set more specific goals were more successful. (See Appendix for instruments.) For example, to reach an assigned goal to stop procrastinating, one subject set a proximal goal to complete a procrastinated project and then set specific steps on her Goal Action Plan to complete that project. Two months later she reported a 5, full success in meeting her goal.

In contrast, another subject set a goal to "Become more productive during the time I am at work and not worry about it when I am not there" with steps to "Use ideas from the workshop to use time more efficiently." His post measure mark of 3 explained, "It was useful for a time immediately after the workshop, but so busy lately it's a job just keeping up and going day to day."

Conclusions

Inferential statistics did not indicate a clear advantage for the goals group over the no-goals group as predicted. However, they did place this study with the limited number of studies able to show results from time management training using self-report measures. Higher commitment scores for self-set goals supported one side of the goal origin debate. But only a trend in favor of self-set was reported on goal reached and behavior scores, two months after the training, leaving the question about the advantage of self-set goals for training unanswered. Meanwhile, written statements, participants added at the two month follow-up, confirmed earlier quantitative studies that specific goals are more helpful than "do your best" goals (Latham and Locke, 1991).

Recommendations

Significant differences between Groups 2 and 3 on pre-test scores indicate sample bias problems that may partially explain lack of significant findings for goals versus no goals in this study. A larger variance in scores for Group 1 compared to Group 2 on goal reached and on commitment suggests that assigned goals may work quite well for some, and poorly for others; whereas self-set goals may inspire a more even response. Further studies to determine what personal characteristics or circumstances predict success for each goal condition could be fruitful. Certainly studies with larger samples, providing more initial homogeneity among groups, are recommended.

References

Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology, 41*, 63-105.

Campbell, D. J., & Gingrich, K. F. (1986). The interactive effects of task complexity and participation on task performance: A field experiment. *Organizational Behavior and Human Decision Processes, 38*, 162-180.

Erez, M., & Arad, R. (1986). Participative goal setting: Social, motivational, and cognitive factors. *Journal of Applied Psychology, 71*, 591-597.

Erez, M., & Earley, P. C. (1987). Comparative analysis of goal-setting strategies across cultures. *Journal of Applied Psychology, 72*, 658-665.

Feldman, M. (1981). Successful post-training skill application. *Training and Development Journal, 35*(9), 72-75.

Gist, M. E., Bavetta, A. G., & Stevens, C. K. (1990). Transfer training method: Its influence on skill generalization, skill repetition, and performance level. *Personnel Psychology, 43*(3), 501-523.

Hall, B. L., & Hursch, D. E. (1982). An evaluation of the effects of a time management training program on work efficiency. *Journal of Organizational Behavior Management, 3*(4), 73-96.

Hollenbeck, J. R., Klein, H. J., O'Leary, A. M., & Wright, P. M. (1989). An investigation of the construct validity of a self-report measure of goal commitment. *Journal of Applied Psychology, 74*, 951-956.

Hollenbeck, J. R., Williams, C. R., & Klein, H. J. (1989). An empirical examination of the antecedents of commitment to difficult goals. *Journal of Applied Psychology, 74*(1), 18-23.

Kirkpatrick, D. L. (1983). Four steps to measuring training effectiveness. *Personnel Administrator, 28*, 19-25.

Latham, G. P., & Locke, E. A. (1991). "Self regulation through goal-setting", *Organizational Behavior and Human Performance, 50*, 212-247.

Locke, E. A., & Latham, G. P. (1990). *A Theory of Goal Setting and Task Performance.* Englewood Cliffs, NJ: Prentice Hall.

Slaven, Georgina, & Totterdell, Peter, (1993). Time management training: Does it transfer to the workplace? *Journal of Managerial Psychology, 8*(1). 20-28.

Wallen, N. E., & Fraenkel, J. R. (1991). *Educational Research: A Guide to the Process.* New York, NY: McGraw-Hill.

Wexley, K. N., & Baldwin, T. T. (1986). Post-training strategies for facilitating positive transfer: An empirical exploration. *Academy of Management Journal, 29*(3), 503-520.

The Roles Consultants Play in Problem-Solving Activities in Human Resources Development Settings

CARROLL A. LONDONER, Virginia Commonwealth University

Introduction

The purpose of this paper is to examine critically several roles HRD consultants use to implement problem-solving activities within organizations to promote creative change processes. The writer believes that inherent in each of these enacted roles is the educational need and desire to assist the client system learn how to solve its own problems under the facilitative guidance of a process consultant. The writer also believes that the co-emerging understandings of a "learning organization" and "action learning" as espoused by Revans (1980) may provide more useful understandings about organizational change and consultant activity than does the related concept of OD. They may also provide greater insight into problem-solving consulting roles than do current taxonomies since "action learning/learning organizations" are problem-solving constructs.

It may be useful to describe problem solving as a set of patterned sequences of creative and perhaps innovative activities or phases that deal with the perceived internal difficulties felt either personally or corporately. Essentially, organizational and training consultants employ the scientific method of problem solving to facilitate systemic change and relieve the felt and/or perceived difficulties. The basic scientific method of problem awareness, problem identification, theory and hypothesis generation, testing or experimentation, evaluating the results, re-formulating one's theories and hypothesis, and resolving the problems is the essential process through which consultants engage their client systems. Regardless of which ever role a consultant employs at any given time, this basic problem-solving process exists in the enactment of each role.

Since problem-solving is basically an educational activity at the corporate level (it may be construed as 'therapeutic' at the personal level when conducted in the presence of a counselor), the consultant must engage client systems in a series of collaborative and facilitative educational activities to help the client system perceive the problem clearly and take the necessary steps to solve the problem. The several roles consultants may play in this process occur at different times throughout a problem-solving cycle and facilitate a different aspect of the cycle. Before examining these specific problem-solving roles it seems useful to explain how and why this approach has such significance in the Occidental hemisphere..

Historic Antecedents To The Approaches And Strategies Of Planned Systematic Change Through Problem Solving

Chin and Benne (1969), show the historical antecedents of planned systematic change to be lodged in both the *'rational empirical' and normative re-educative* strategies that emerged from the European periods of the enlightenment and classical liberalism with their emphasis on equality of opportunity for and between all persons regardless of class and status. This, of course, was picked up and implemented in the United States and Great Britain in various personages (Locke, Hume, Thomas Jefferson) and the institutions they supported.

The essential assumptions of the rational empirical approach are that people are rational beings and hence they will follow their rational self-interests once they perceive it. These rational self-interested persons will adopt proposed changes if they can be rationally justified and if people see their own personal and corporate gain as the reward of a proposed change. The tool of this change, espoused by classical enlightenment authorities, was the "scientific method of investigation" which would liberate all persons from the shackles of ignorance (lack of education) and the oppression of authority (as centered in Royalty and the Church). Hence, education and mastery of the scientific problem-solving method, was viewed as the essential way of disseminating scientific knowledge universally. Obviously, entrenched authorities in all domains rejected and attempted to stifle this modernistic approach to parity and equalization among persons through the emerging disciplines of science which questioned all previous known facts and authorities.

The normative re-educative approach's assumptions, beginning with such radicals as Freud and Jung and becoming focused in Dewey (in Ratner, Ed. 1967) and Lewin (1951), agreed that people were indeed rational. However, the *differentiating assumption for them was that people are highly goal directed and are in a dynamic interaction and transaction with their environments.* Often the external environment and the internal perception of that environment thwart their goal achievement. People must then reshape their internal and external environments so they are more conducive to goal achievement both personally and societally. Cultures, like people, are in dynamic transactions with their environment and the culture must also reshape the environment so it facilitates cultural goal achievement. Corporate cultures encompass norms, values, beliefs and commitments that create corporate patterns of action, response, and practice in relation to the environment. Corporate systematic change occurs when people and the organization re-order their normative orientations away from the old ways of behaving and responding and develop new structures, roles, norms and patterns of behavior, as well as cognitive and perceptual orientations, so as to interact with the environment in purposeful ways. The scientific method of problem solving is the major tool for re-ordering the corporate culture and changing the organization and society.

Problem Solving: The Application of the Scientific Method to Individual and Organizational Change

Any number of schemes have been used to express the problem-solving process. Some see it as a four step process, others five and others six. A simple four step process sees it as: 1) awareness that a problem exists, 2) preparing to find a solution, 3) attempting to find a solution, evaluating the results, and 4) the adequacy of the attempted solution in resolving the problem. Figure 1, however, presents a six step process which an organization might express as its problem-solving approach.

Consultants play multiple roles in the overall problem-solving process and enter the process at different times of the cycle depending on the situation and the need of the client system. The roles represent the skills and competencies of a consultant rather than static entities. Role taxonomies are classified according to a **task-oriented|process-oriented continuum** (Margulies and Raia, 1972) or **directive|non-directive continuum** (Lippitt and Lippitt, 1986) suggesting multiple responses to an organization's needs. These taxonomies tend to indicate either the degree of client system participation encouraged by the consultant, or the degree of empowerment and independence experience by the client-system and encouraged by the consultant.

Figure 1 Basic Problem Solving Process

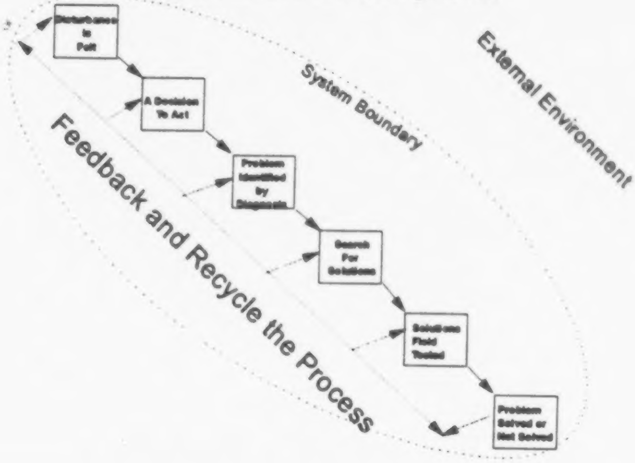
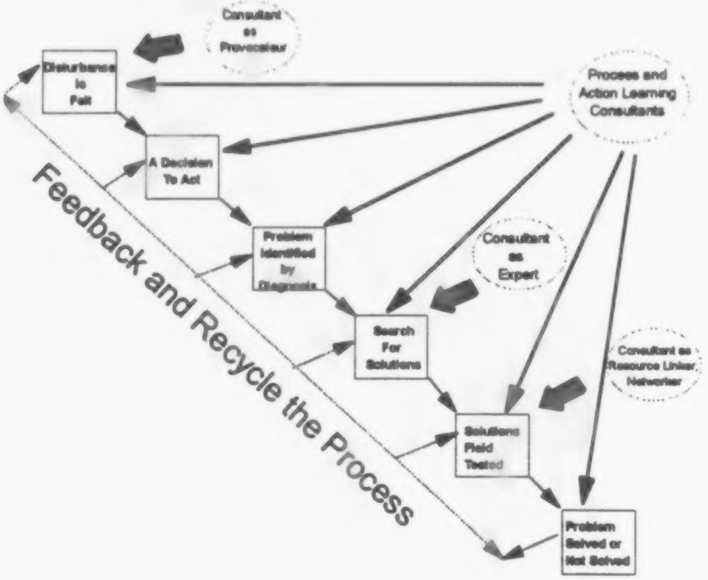

Disturbance
Is
Felt
A Decision
To Act
Problem
Identified
by
Diagnosis
Search
For
Solutions
Solutions
Field
Tested
Problem
Solved or
Not Solved
System Boundary
External Environment
Feedback and Recycle the Process

Figure 2 indicates four roles consultants may enact and where in the problem-solving process the consultant may enter the action. It may be rightly argued that a number of other roles have been identified (Bell, Nadler, 1985; Lippitt & Lippitt, 1986) in addition to these four. Indeed, this is true. However, the writer argues that those are more in terms of the taskllprocess orientations rather than related specifically to the problem-solving process. Accordingly, for this discussion, these four roles will be discussed in terms of where in the problem-solving sequence they enter and the effect they have upon the process.

Fig 2 Basic Problem Solving Process and Consultant Role Interventions


Consultant
as
Provocateur
Disturbance
Is
Felt
Process and
Action Learning
Consultants
A Decision
To Act
Problem
Identified
by
Diagnosis
Consultant
as
Expert
Search
For
Solutions
Consultant as
Resource Linker,
Networker
Solutions
Field
Tested
Problem
Solved or
Not Solved
Feedback and Recycle the Process

The Consultant as a Provocateur, Inciter, Stimulator.

BEST COPY AVAILABLE

This role may appear somewhat surprising to some . However, it is a role often enacted by some consultants as part of their overall strategy. This consultant usually enters as a person external to the system whose sole purpose is to create a sufficient disturbance that the system will be forced to alter its routines and make changes. Saul Alinsky, the famous community development activist of the 1950s and 1960s, comes most readily to mind. The provocateur may also be "sent by headquarters" (and is, therefore, external to the system to which he/she is sent) to shake up the troops and disrupt the current placid state of affairs. This consultant role may have significant impact upon the process of change and problem solving. Another example might be a vitally interested person or persons from a community who make significant demands upon an organization to change or face the consequences. Irate parents making demands upon a school district, for example, might cause such significant disturbance that the system must commence with a problem-solving process of face serious consequences and/or political chaos.

The Consultant as Expert

This consultant has a unique and important role to play in many organizations and in certain problem-solving situations. As can be seen in Figure 2, the expert is a solution giver or an advocate for a specific solution and enters the system at the point where this is required. This is the "Red Adair" person who is called in specifically to respond to a situation in which he or she is the only reasonable person to call upon. As one might expect, this person is not called upon to provide process or democratic action. The choice is his or hers to respond to an immediate situation in which he/she is the only responsible party. Most often, this technically based consultant will terminate the consultantship after the required solution has been suggested or after it has been installed correctly and the problem solved.

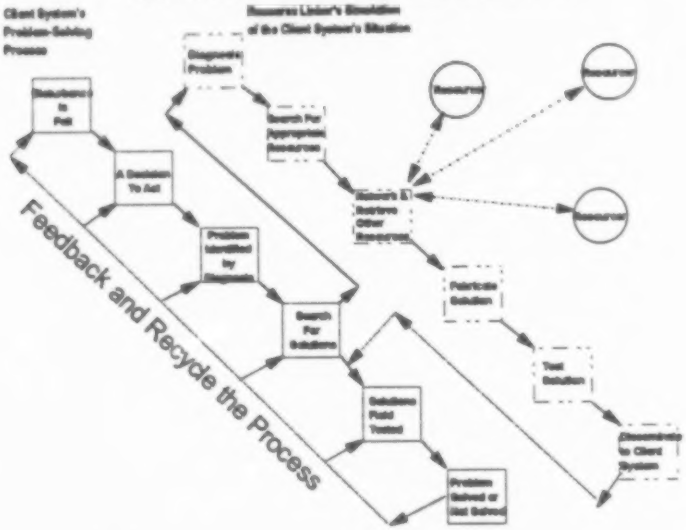
Perhaps the greatest danger to the expert consultant is to assume that what has been tried elsewhere is universally relevant for all situations. Clearly, however, client systems need to have a solution adapted and 'fitted' to their own specific requirements. In fact, it may be useful for the expert to suggest several alternative solutions so the client system might be able to be the final judge of a situation. Not unusually, the expert may need to be well connected with others and hence becomes somewhat of a resource linker.

The Consultant as Resource Linker and Networker

In Figure 1 the dashed line around the entire graphic attempts to show that every system has its own boundary, its own skin that keeps its system intact and distinct from the external environment. Open systems theory indicates, however, that healthy systems have "boundary permeability," or open energy and resource exchanges to and from the external environment. Often in a problem-solving process the healthy client system must request insight, knowledge, or other resources from various networks that exist in the external world. Problem-solving in large part is a matter of matching needs of persons and groups with resources from other persons or groups. Yet, many people, groups and organizations have difficulty in asking for help and giving help in whatever way possible. Consultants with special skill in interpersonal relationships and communications often facilitate a client system in feeling comfortable in requesting help beyond its own boundary. This person is a "resourcer" who possesses knowledge, skills, values, attitudes, products or materials the client needs to solve its problem. This person is also a "networker" in that he/she has links to and from other multiple "resourcers" and the client system. One of the best descriptions of the linkage function of consultants is found in Havelock (1969, 1973). There, Havelock suggests that the internal problem-solving process of a client-system is the beginning point of the process but the steps of *searching for and retrieving resources* is the critical juncture where linking begins. He also indicates that a good resource linker and networker carefully crafts, recapitulates and simulates (builds a mental model of) the internal problem-solving and working process of the client system. Simultaneously, if the client system is to understand the resourcer well, it, too, must be able to understand and partially simulate such resource system activities as research, development, and evaluation. To achieve accurate model building and simulation both the resource linker and client system must provide meaningful reciprocal (two-way) communication and feedback that is reinforcing to both. Once that relationship and model building is well established the resourcer is then capable of "networking" with whichever resources are required to meet the client system's problem-solving solution needs.

Figure 3 attempts to portray this dynamic problem-solving relationship between the consultant resourcelnetwork linker and the client system's problem-solving process. It is clear that a mutual relationship of trust, respect, and risk-taking is created in this consultant role. Because the client system lacks these resource linkages, it must trust the resource linker to find and connect with appropriate resources that may be able to help solve the client system's basic problem. One clear example comes to mind. Historically, land grant universities with their extension service and county agent system have provided this kind of a resource linkage and networking relationship since the 1860's with the passing of the Morrill Act and subsequent legislation that created the Extension Service. Today, many rural sociologists working within land grant universities are employed by the university to continue this historic linking relationship with constituents in a respective state.

Fig 3 Resource Linker As A Problem-Solving Consultant


Client System's Problem-Solving Process
Resource Linker's Simulation of the Client System's Situation
Disturbance is Felt
A Decision To Act
Problem Identified by Diagnosis
Search For Solutions
Solutions Field Tested
Problem Solved or Not Solved
Diagnose Problem
Search For Appropriate Resources
Network & Retrieve Other Resources
Resourcer
Resourcer
Resourcer
Fabricate Solution
Test Solution
Disseminate to Client System
Feedback and Recycle the Process

Process Consultants and Action Learning Consultants

It has been fashionable since the early days of Lewin's (1951) entrée to the United States to speak of the interrelationships and dynamics within groups as "processes" as opposed to tasks and/or products of groups and organizations. As the group dynamics movement gave way to human relations training and the NTL movement which in turn gave way to the OD movement, the word "process consultant" has been used loosely to imply many subjective and affective domain approaches to helping a client system make appropriate changes. An oft quoted definition of process consultation comes from Schein (1969). He defines the role as "...a set of activities on the part of the consultant which help the client to better perceive, understand, and act upon process events which occur in the client's environment." The definition weighs heavily upon the mutual diagnosis conducted by both client system and consultant the purpose of which is to facilitate and educate the client system in the skills necessary to continue the process in the absence of a consultant. In addition to diagnosis, especially within an OD context, process consulting may also include training in such processes as: communication and interpersonal communication

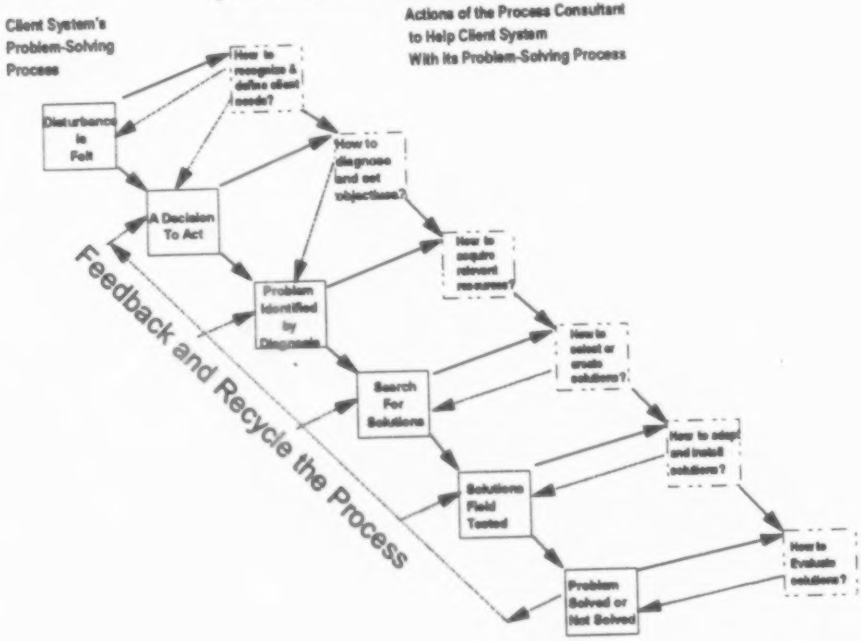
90 BEST COPY AVAILABLE

processes; decision-making processes; problem-solving processes; intergroup conflict resolution and cooperation; leadership processes; and interpersonal relationship processes (Stewart, 1991)

As can be seen by the above description, process consultation readily takes in the whole realm of human actions within groups and organizations. Such a person should be trained broadly in the area of the applied behavioral sciences with special emphasis on psychology, group dynamics, leadership, social-psychology and sociological theory as it pertains to power, control, bureaucracies, status and action systems. Our concern here, however, is to focus upon the process consultant as a guide to and in the problem-solving situation.

Figure 4 portrays the relationship between the client-system's habitual problem-solving processes and its relationship to process consultant behaviors to facilitate the process. By focusing on the mutual interdynamics between the consultant and the client system the client learns the process so that, eventually, it is capable of replicating these problem-solving steps without the aid of either an internal or external consultant.

Fig 4 The Process Consultant as a Problem-Solver


Client System's
Problem-Solving
Process
Actions of the Process Consultant
to Help Client System
With its Problem-Solving Process
How to recognize & define client needs?
Disturbance is Felt
How to diagnose and set objectives?
A Decision To Act
How to acquire relevant resources?
Problem Identified by Diagnosis
How to select or create solutions?
Search For Solutions
How to adapt and install solutions?
Solutions Field Tested
How to Evaluate solutions?
Problem Solved or Not Solved
Feedback and Recycle the Process

The Action Learning Consultant as a Problem-Solver

Revans (1980, 1982) developed a management development approach in the United Kingdom in 1945. He termed this approach "action learning" and created a theory he entitled "System Beta." Revans has become an international celebrity with his approach on solving real problems by real people caught up in the problem. In 1993 he was invited by Mandela and DeClerk of South Africa to assist in the removal of apartheid and the restablishment of the new non-racial government there (personal conversation with Professor Revans). He has been discovered in the United States by a number of proponents who believe the next phase in developing organizations is to engage an entire organization in the learning process. Hence, the term "the learning organization" which has surfaced recently by Marsick (1993) Senge (1990) and other writers and practitioners.

BEST COPY AVAILABLE

System Beta as I understand it simulates the "scientific method" by which our modern world advances. He identifies the scientific method as a five step process of (1) Survey or observation, (2) Theory or hypothesis, (3) Testing or experimenting, (4) Audit or evaluation of results and, (5) Review or Control (Revans, 1983).

In one major way action learning is much more than merely problem-solving by the scientific method. *It is more of an attitude toward life and its problems or one might say a way of "coming at life" that distinguishes this unique approach.* Using Aristotelian and Socratic thinking and questioning, an entire organization is engaged in examining current knowledge to consider new ways of configuring it to respond to problems. Hence, problem-solving according to action learning is not necessarily gaining new knowledge. Rather it is the re-arrangement of what one currently knows by asking incisive inquiry based questions that go beyond current understanding. It is this very act of asking significant questions that propels individuals and organizations into new realms of action, relationships and ideas.

Perhaps more critical than anything is the assumption and belief that one does not have to go outside the system for a consultant to help with this process. Indeed, given time and insight persons internal to the system can develop these critical questioning skills and attitudes. Thus, managers can learn to employ System Beta to move an entire organizations much beyond its current levels of operation and understanding by adopting the curiosity of a scientist in search of new ways of re-ordering knowledge. Another assumption seems to be the belief that one must "take the risk" of doing something (taking action) so that learning can occur. That is, learning is essentially experiential in that one must **act** and then reflect on that action so learning can be extracted. This, of course, flys in the face of conventual wisdom and prevailing pedagogy that suggests an *a priori* approach to learning (from general learning to specifics). Thus, Revans would fall into the *a posteriori* school of learning (from specifics to generals) in which **the experience** (the action taken) dictates the learning. One is reminded strongly of both Lewinian thinking and Dewey's (1916, 1964, p. 76) description of education as the continual reorganization and reconstruction of experience which adds to the meaning of the experience and promotes the ability to direct subsquent experiences. Clearly, learning then, is experientially based and reflected upon after the action has occurred.

Revans (1983) suggests a proper equation for learning should be **L=P+Q.** **P** is equal to the sum of "programmed knowledge" (that which is readily know by pedagogical instruction) and **Q** is equal to 'questioning insight' or the ability to pose useful questions when there is little certainty of what might happen next but it is critically important to take the leap of faith and make an action decision even in the face of chaotic change.

Action learning draws upon many current strategies in management but is distinguished by several characteristics. To employ the scientific method properly, organizational participants are formed into groups of four to eight persons called "Sets." These groups are called *"Action Learning Sets"* and meet regularly to review critically the progress of the individual members and the group as a whole. The 'set' also serves as a support and development vehicle of the members.

Each Action Learning Set has a *"Set Adviser"* who facilitates the group operation. There is little "teaching" by the set adviser. Rather, he/she guides and facilitates the action learning set through the steps of problem-solving and the scientific method. Key to the success of the set is the ability to generate significant questions that force the members to think about the future in new ways. For example, questions might be posed such as: "What are we really trying to do?" "What is hindering us from doing it?" "What can we do about the hindrances?" These questions are posed generally in the diagnostic phase but can be revisited at any time in the process.

It seems reasonable to suggest that every one of the skills process consultants must employ must also be used by the Action Learning consultant. All of the process skills, attitudes, values and understandings must be employed. However, it seems in Action Learning that a more critical and significant issue is *one's personal attitude*. That is, the action learning consultant must possess the attitude of a scientist with all inquisitiveness that description conjures up. Further, there must be a real risk of failure involved in the process for the action learning consultant. That it, this must be a life and death situation for him/her as well as for the organization using those skills. Otherwise, one simply has a kind of detached intellectual set of problem-solving skills to employ and if they fail one can merely walk away unscathed. This is not at all what Revans espouses.

One can see then that while there are some strong similarities between the process consultant and the action learning consultant, the strength of the involvement seems to have intensified dramatically for the action learning consultant.

The following table attempts to show the relationship between the process consultant's approach to problem-solving with a client system and the action learning consultant's approach with a client system.

Table 1 Relationships Between Problem-Solving Steps, Process Consultant Actions and Action Learning Consultant Behaviors to Facilitate Change

Basic Problem-Solving Steps	**Process Consultant's Actions in helping Client systems' Problem solve**	**Action Learning Consultant's Behaviors in facilitating the scientific method for organizational learning**
Disturbance is felt	Build a Relationship with the client System	Inquiry and arousal of interest of potential action learners (Enquiry)
There is a decision to act	Develop a mutual decision to work together	Desire to participate and to learn the basic vocabulary of action learning. Action learning Sets established.
The problem is identified by diagnosis	Mutually diagnose the client system's problem	Engaging in Diagnosis by critical questioning of purpose and intent; Three questions asked that form a strategic plan: "What are we really trying to do?" "What is stopping us from doing it?" What can we do about it?
There is a search for solutions	Acquire relevant resources to facilitate client system change; choose candidate solutions.	Sequential Notion of Diagnosis: Thinking further about the diagnosis which leads to the 6 sub-phases of: *analysis, development, procurement, construction/assembly*, *application, and review*
The solutions are field tested	Try out the best candidate solution and get feedback for mutual re-diagnosis; Put best solution to work	Therapeutic activities: Action taking by currying one's allies to assist in the change process. 3 sets of allies exist: those who *know about & understand the problem*; those who genuinely *care about doing something about the problem* and those *who have the power to create the change*
The problem is or is not solved	Stabilize the intervention and gain acceptance from adopters	
	Generate system independence through self-renewal	Return to "supporting assemblies" (the Action learning sets) and Re-frame one's hypothesis and ideas in light of the action

It seems to the writer that there are many similarities between process and action learning consultants. However, the one integral difference appears to be the involvement of the action learning consultant (Action Learning Set Adviser) in the whole process. He or she is intimately involved so much so that he/she is also risking greatly any such actions made by the Action Learning Set. This is very distinctive from the process consultant who is involved in the process but can walk away after the intervention because it is the client system's problem! The Action Learning consultant "owns" the problem just as much as his/her action learning set and must also take the leap of faith in risking the action required by the change effort. It is this "ownership" that is distinctive and makes the organization a truly "learning organization." Only when everyone in an organization (senior personnel as well as subordinates) is "riskly involved" can learning occur because everyone dared to act and from the action, and reflection, has come the learning and the change

Summary

This paper has presented a brief historic overview of the etiology of problem-solving in the Occident. It has also presented a description of five consultant roles which may be enacted with a client system to facilitate its problem-solving strategies. These various roles may be enacted by one person or multiple persons entering the problem-solving process at different stages. Each role is useful in the problem-solving process. The roles of Provocateur, Expert, and Resource Linker have specific places in the process in which they enter and terminate that role. The roles of Process Consultant and Action Learning Consultant are engaged throughout the entire problem-solving process.

There seems to be evidence that the role of Action Learning Consultant, while employing many of the same skills as the Process Consultant, functions at a more intimate and intense level with the client system. The intensity and intimacy of this relationship precipitates the action learning and facilitates the "learning organization." It may well be that this action learning and learning organization approach may supplant current notions of organization development and move human resource development into a new era.

References

Bell, C. R. & Nadler, L. (Eds.). (1985). *Clients & consultants* (2nd Ed.) Houston: Gulf Publishing Company.

Chin, R. (1961, 1969). General strategies for effecting change in human systems. In W. G. Bennis, K. Benne, & R. Chin (Eds.), *The planning of change* (2nd Ed.) New York: Holt Rhinehart and Winston, Inc.

Dewey, J. (1916). *Democracy and education.* New York: Macmillan.

Dewey, J. (1938) *Experience and education.* New York: Macmillan.

Havelock, R.G and Guskin, A. (1969). *Planning for innovation through the dissemination and utilization of knowledge.* Ann Arbor: Institute for Social Research, The University of Michigan.

Havelock, R. G. (1973). *The change agent's guide to innovation in education.* Englewood Cliffs, NJ: Educational Technology Publications.

Lewin, K. (1951). *Field theory in social sciences.* New York: Harper And Row.

Lippitt, G. & Lippitt, R. (1986). *The consulting process in action* . (2nd Ed.). San Diego: University Associates.

Margulies, N. & Raia, A. (1972). *Organization development: values, process, and technology*. New York: McGraw Hill.

Marsick, V. (1993). Sculpting the learning organization: consulting using action technologies. *New directions for adult and continuing education*, San Francisco: Jossey-Bass.

Ratner, J. (Ed.) (1967). *John Dewey, philosophy, psychology and social practice.* Capricorn Books.

Revans, R.W. (1980). *Action learning*, London: Blond and Briggs.

Revans, R.W. (1982). *Origins and growth of action learning*. Bromley: Chartwell and Bratt.

Revans, R.W. (1983) *The A.B.C. of action learning*. London.

Senge, P. (1990). *The fifth discipline*. New York: Doubleday.

Schein, E.A. (1969) *Process consulting: Its role in organization development*. Reading, MA: Addison-Wesley.

Stewart, J. (1991). *Managing change through training and development*. San Diego: Pfeiffer & Company.

A Conceptual Systems Approach Model for Collaborative Consulting in Human Resource Development

CARROLL A. LONDONER, Virginia Commonwealth University

Introduction

The consulting literature is rich with models that help consultants learn to use the phases of the consulting process for creating planned systematic change. What is missing from most of these models is a clear articulation of the philosophical and change assumptions upon which the models are created. Generally, the majority of consulting models are based either knowingly or unknowingly upon the work Kurt Lewin (Lewin, 1951) and his followers who applied the assumptions and premises of phenologicalism and Lewin's Force Field Analysis Approach. Too often, the authors fail to credit Lewin or his followers or if they differ from his model (unfreezing–movement–refreezing), they do not articulate the premises upon which their models are based.

Over thirty years ago Chin (1961, 1969) lamented that social scientists were less concerned with changing a system than they were to create a 'theory of change' to study how an organization works and predict what happens when new factors were introduced. In contrast, practitioners were concerned with the whole process of diagnosis which is the art of achieving understanding of an organization to engage it in a change process. Hence, the practitioner needed a *'theory of changing a system'* rather than a mere theory of change. He reminded his readers that a theory of changing required the selection, or construction, by theoretically minded practitioners, of conceptual models appropriate to their intended purpose. He proposed five guideline questions practitioners could use to either construct or examine a model dealing with the theory of changing a system. These questions focused upon:

1. The *stability or continuity of the change process*
2. The *causation or source of the change*
3. What the model assumes about *how the goals and directions of change are determined*
4. What the focus of the change intervention is aimed at systemic re-structuring; actual vs. potential system functioning; perceived need of a client system.
5. Where the model *places the role of change agent in the entire change process*

Contemporary authorities have generally ignored Chin's notions and guidelines. Rather, they have constructed developmental phase and stage models that are based on a collaborative relationship between client system and change agent. One must deduce from these stages the underlying philosophical and psychological premises upon which the models rest.

The purpose of this paper is to articulate clearly the premises upon which a proposed systems approach model for collaborative consulting in HRD are based and indicate how and in what ways these premises influence the various stages of the proposed model, promote effective analysis of a system and create effective change strategies based on that analysis.

BEST COPY AVAILABLE

Rationale for Using the Systems Approach as the Theoretical Basis for Creating a Systematic Change Process for HRD Settings

Assumptions Upon Which the Model is Based

The systems approach was chosen as the theoretical framework for this model because it promotes an examination of both structural relationships and intersystem and interpersonal relationships within subsystems. It is one of the major ways of viewing and managing a systematic change process within organizations. And it takes seriously the critical nature of change within systems and what the change process can do to people caught up in the change.

One of the major assumptions for using this systems approach is the very nature of the change process itself. The author believes that corporate and personal resistance to change occurs because people **resist being changed or resist having change thrust upon them without being involved in the process.** People are more likely to embrace change when they have been consulted and brought into the deliberations of the change process for their input and decision making ideas. People will take responsibility for the change process ("ownership") when they (1) understand the problems creating the need for change and (2) when they are asked to help make the decisions **at the lowest levels of an organization because they are clearly the ones who best know, at that level, what will be required to make the change work effectively at that level.** The proposed model clearly takes this into account and builds it into the process.

A second assumption of the systems approach is that we obtain a truncated model of reality reduced to a two dimensional plane by using formalized system flow charting symbols. A systems model is both symbolic and isomorphic. *Symbolic* in that it is not reality itself but abstractly points to and represents that reality. And it is *isomorphic* in that there is a one-to-one correspondence between the structure of reality and the structure of the model most of the time. That is, there is an equivalent relationship between the symbolic model and its reality. As Kaplan (1964, p. 263) has noted "Both systems have the same structure, in the sense that whenever a relation holds between the two elements of one system a corresponding relation holds between the corresponding elements of the other system."

The final assumption rests upon the analytical insight afforded by systems models. Clearly, a flow chart is *not reality* but is merely a symbol of it. Nevertheless, it is most helpful in creating conceptualizations about change processes within organizations. Chin (1969, p. 298) noted that a systems approach model is both *an analytical and a concrete model.* It is *analytical* in that it is "simplification of some part of reality that retains only those features considered essential for relating similar processes whenever and wherever they occur." It is *concrete* in that "it is based on an analytic model but uses more of the content of actual cases, though it is still a simplification designed to reveal the essential features of some range of cases."

Analytic models help HRD theorists and practitioners recognize what factors are being considered, what relationships among them are assumed, and what the conclusions are based upon. Concrete models, based on analytic models, help HRD personnel perceive the indirect effects of change in a relationship and one can then refer back to the analytic model and ask "why" this has occurred.

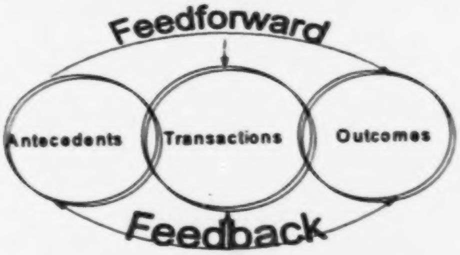
Operational Definitions of Systems, Systems Analysis and Systems Approach

For the purpose of this paper *Systems* is defined as a complex organization or specific unit encompassing actors and their actions within interacting subsystems attempting to achieve specified purposes, goals or missions. These systems are most characterized as having specific "*Outputs*" (missions, goals, ends, products), "*Antecedents*" (all entry variables that will be used by the system to achieve its mission) and "*Transactions*" (the interactions among and between tasks, functions and the methods and means for achieving specific missions of the system). A non-technical description of a system is that it is simply the assemblage of total parts working independently and together to bring about a previously specified end product (Londoner, 1972). A system, therefore, has organization (structure), interaction, interdependency, and integration of parts and subparts all designed to achieve a specific and articulated mission.

Systems Analysis is operationally defined as the process of reducing the elements of a whole social system to its many component parts while still relating them to each other and to the whole system simultaneously (Londoner, 1972). Systems analysis employs four sets of analytical tools to accomplish its activities. These are: mission analysis, function analysis, task analysis and method means analysis. These tools provide a process for determining the requirements of an educational and/or training system design and the feasibility of creating such a design (Kaufman, 1972). Although beyond the scope of this paper, the interested reader should consult Kaufman's excellent discussion of these tools.

Operationally, *systems approach* refers to the total analytical procedure (blueprint) and processes for progressing from the assessment of an educational/training need and the specification of the terminal outcome (mission) to the logical achievement of that outcome through the logical sequencing of the components comprising the total system (Londoner, 1972). Graphically, the systems approach may be reduced to three major components as follows:

Figure 1. Three Major Components of A Systems Approach



A number of disciplines adopted systems thinking over the years. Engineers, architects, anthropologists, sociologists, psychologists, counselors and educators use this approach as a method for creating, analyzing and synthesizing their respective fields. This particular approach has been termed the "structural–functional school of thought" (Parsons, "et al., 1967) A key thought that runs throughout all disciplines employing systems thinking is the idea that **structure (or form) follows function.** Thus, once the system's goal or purpose is decided upon, the subsequent structural components are organized and sub-systems created to discharge the mission in the most efficient and effective manner possible. The systems approach asks the system designer to analyze each of the three major components to assure that they are tightly integrated and working together to produce the desired outcomes

Major Concepts Related to Open and Closed Systems

1. *Open Systems:* These are systems that exist in interdependent exchange relationships with other sub-systems of a system or have an exchange relationship with their larger environments. So, for example, the "outputs" or products of one system may become the "inputs" or antecedents to another system or sub-system.
2. *Closed Systems*: These systems have no exchange relationships with other systems. They exist as a totality unto themselves. Hence, closed systems often

exhibit **'negative entrophy'** toward their larger environment in that they become cut off from the inputs of the larger environment and eventually run down, become marginal or obsolete and even go out of existence. Closed systems can be very useful for diagnostic purposes because the systems analyst can artificially close off the system from the environment and see how it operates in isolation. Then he/she can reopen the system to the environment and determine how it functions.

3. *Boundary and Boundary Permeability:* All systems have a boundary line that differentiates them from other systems. Chin (1969) notes that a boundary is a 'line forming a closed circle around selected variables, where there is less interchange of energy (or communication, etc.) across the line of the circle that *within* the delimiting circle.' The boundary may be physical such as the skin of a person, a tightly corked vacuum bottle, or the number of people in a group. The boundary line may be less tangibly ordered by placing our boundary according to the variables being focused upon. Examples would be the multiple roles people play, the varied roles among members in a small work group, or a system boundary interrelating the various roles within a specific family.

   Boundary permeability is the extent to which there is fresh energy inputs (materials, money, people, information, classrooms, etc.) from other systems in the external environment sources and fresh energy outputs (the products of the system) back to the external environment (the users of the products). Effective, efficient and healthy open systems have ample boundary permeability at the input (antecedents) and output (outcomes) component levels where there is a free energy flow of all variables.

4. *Tension, stress, conflict:* Components within systems differ from each other, are not perfectly integrated, and are often changing and reacting to internal changes and external disturbances. Hence, there must be some ways of dealing with these variabilities. These differences lead to varying degrees of *tension* within a system. Tensions that are internal and arise out of the "structural arrangements" of a system are termed **the stress and strains** of a system. Tensions that gang up and become more or less sharply opposed along the lines of two or more structural components of the system or subsystem are termed **the conflicts** of the system. Stress and strain tensions focus upon the internal infrastructure of a system. Conflict tensions focus upon the interfaces" between two or more system components.

   The identification and analysis of how tensions, stress and conflict operate in a system are extremely useful to a system analyst concerned with the practical aspects of the systematic change process created by clients and consultants. These tensions lead to two kinds of system activities: (1) *system dynamics* that do not necessarily affect the structure of the system but do help explain the tensions and strains that may exist. (2) *system structural change procedures* that do alter and affect the structure of the system itself and which may alter both system dynamics and potential outputs.

5. *Equilibrium and the "steady state:* Like all living things, systems are assumed to seek and maintain a balance among the various variables and forces acting upon and within it. When the balance is achieved, the system is said to be in "equilibrium" (balance) or has achieved a "steady state." These terms describe the balanced functional relationship of parts to each other. There are several types of equlibirua used in the systems approach. (1) Stationary equilibrium exists when there is a fixed point or level of balance to which the system always returns after a disturbance. An example is the human body which has a relatively fixed temperature point. When one becomes ill, the temperature fluctuates until the disease state runs it course and the temperature returns to its fixed point. (2) Dynamic equilibrium exists when the equilibrium shifts to a new position of balance after the disturbance and remains there. Lewin's force field analysis approach is a

classic example of dynamic equilibrium wherein the change agent intentionally introduces a disturbance in order to have the system shift to a new level of equilibrium after an intervention.

6. *Feedforward and Feedback:* Systems are assumed to have clearly articulated missions (outcomes, products). They are structured in such a way as to maximize the achievement of these missions. *Feedforward* is a concept derived from self-guiding and self-correcting rocket systems used in early flight. The rocket had an electronic data gathering telemetry system in its nose cone that emitted signals forward down range to another telemetry box. That down range telemetry box was the rocket's "target" or mission. It had to reach that telemetry box to be successful. In a systems approach, Feedforward refers to the solid lines with small arrow heads that connected each of the system components together in a forward direction. Feedforward refers, therefore, to the actual design and interconnectedness of a system as it moves forward along all the components toward its mission.

Feedback is the self-correcting aspect of the system. Once the down range telemetry box received an electronic signal from the rocket, it emitted an electronic return signal back to the rocket to correct "off course wandering." In the systems approach feedback is the self-correcting dynamic of a system that assures that the interpersonal dynamics and the structure of a system and its sub-structural parts are working effectively and efficiently to achieve the system's declared mission. Feedback may be used for several reasons. (1) It may be used to modify the interpersonal dynamics of persons to help them better achieve efficacy in discharging their roles in a system. (2) It may be used to modify system structural components to better achieve the mission. (3) It may be used to create a new mission because the old mission has changed significantly or has already been achieved and the current structure does not support the new mission. (4) Feedback may be used to discover if there has been mission displacement or method and means displacement. This is a situation where in the actual mission and the means for getting there have been switched. An example would be where a "for-profit" hospital insists that its mission is to provide "better patient care." This is mission displacement! The mission of the for-profit hospital is to make money for its stock holders. The way it gets there (its method and means) is by providing "better patient care." This confusion is rampant in the world of commerce where, for some reason, people in a capitalistic society seem uncomfortable with admitting that making money is what they are all about. Thus, euphemistically, they find some nice and socially acceptable mission (better patient care). However, workers in such a system become decidedly confused when asked what their mission really is. Inevitably, they say "to provide better patient care." When a system fails to understand its mission then the **structure** it creates to establish the "false" mission (which is really the **method** for achieving the mission) is in near chaos and the system repeatedly fails to achieve either the true or even its false mission.

Relationship of Systems Approach model to the HRD Consulting Phases

The relationship between the theoretical framework of a systems approach model to the proposed phases of a Client–Consultant consulting model is shown in Table 1.

BEST COPY AVAILABLE

Table 1. Relationship of Systems Approach and Stages of Consulting Model

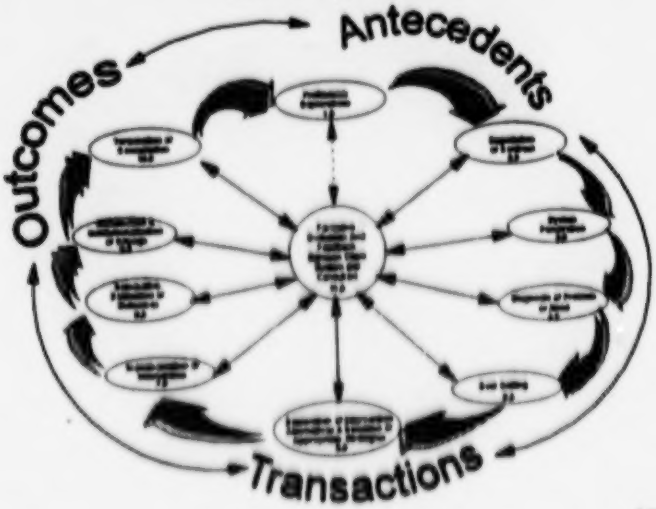
Antecedents	**Transactions**	**Outcomes**
Preliminary Explorations		
Negotiation of Contract		
System Penetration		
	Diagnosis of Problem or Need	
	Goal Setting	
	Exploration of Intervention Alternatives & Selection of Appropriate Strategies	
	Implementation of Interventions	
	Summative Evaluation of Outcomes	
		Stabilization & Institutionalization of Change
		Termination of Consultation
FORMATIVE EVALUATION AND FEEDBACK BETWEEN CLIENT SYSTEM AND CONSULTANT		

The table identifies which components of the proposed consulting model fall under and are governed by the specific systems approach structures and the dynamics of system inter relationships. Three of the consulting stages fall under and are governed by the "antecedents" component of the systems model. Five stages fall under and are governed by the "transactions" component of the systems model; and two stages fall under and are governed by the "outcomes" component of the systems model. Thus, in whichever stage clients and consultants find themselves, they can understand how the systemic dynamics affect and impact upon the particular stage they are in. That is, for example, while the client and consultant are engaged in the stage termed "Diagnosis of Problem or Need" which is subsumed under "transactions," they should consider the effects that the impact of open and closed systems, boundary permeability, tensions, stresses, conflicts, and equilibrium factors have upon that specific stage.

Description of the Stages and Phases of the Proposed HRD Consulting Model

Figure two represents, graphically, the same system dynamics expressed in Table 1. Many people relate more to graphic representations than they do to analytical tables. Consequently, this figure will be used extensively throughout the remainder of the paper to discuss the same ideas expressed in the table.

Figure 2 A Systems Model Approach to HRD Consulting Phases and Procedures
A Collaborative Effort



Because of the limitation of space only the barest description and work procedures can be given. Each of the identified stages represent a chapter in a book the author is writing. In that book, work focuses, relationship of the systems approach to the stages, structural relationships, and interpersonal dynamics are discussed in significant detail. A useful overview to the work focus approach within each stage is found in the works of the Lippitt brothers (1986). They identified kinds of tasks and processes required in any phase of consulting. *Task focus work* includes such variables as identifying and mobilizing resources, setting goals, clarifying corporate cultural values, projecting alternatives, developing evaluation plans, etc. *Process focus work* include identifying all the dynamic interpersonal relationships that exist in such areas as conflict management, team building, communication blockages, power and authority distribution, leadership styles, etc. This useful taxonomy is employed throughout the remainder of this paper.

Readers will also note the center of the proposed model is labeled "Formative Evaluation and Feedback between Client System and Consultant." Two headed arrows on dashed lines indicate this is a feedback process throughout each step of the model. Formative evaluation means "in process" or developmental evaluation in which modifications and fine tuning take place as the process unfolds. This step will not be discussed separately at each phase. However, it is critical to the entire process and is assumed to be operational throughout the model.

1.0 Preliminary Explorations

The work of the first phase involves initiating the development of helping relationships between a client system and a consultant to provide a basis for possibly working together to bring about systematic planned change in a system. Several tasks present themselves to both the client system and the consultant. The Lippitts (1986) identify four "Work Focuses" critical to establishing and maintaining helping relationships as well as focusing on the kinds of task or process work required in phase of consulting.

1 Work Task or Process Focus: Making the First Contact.
    1.1 Identifiy who feels uncomfortable and needs a helping relationship

BEST COPY AVAILABLE

- 1.2 Determination of who the client really is by the consultant–the person making the contact or some other system echelon.

2 Work Task or Process Focus: Helping Identify and Clarify the Need For Change.
- 2.1 Preliminary exploration of **what needs changing**
- 2.2 Collaborative exploration to determine the **intensity** of the problem

3 Work Task or Process Focus: Exploring the Systems Readiness to Engage in the Change Effort.
- 3.1 Consultant explores the philosophy and value of collaborative systematic change with clien system

4 Work Task or Process Focus: Exploring the Potential for Working Together and Creating a Meaningful Helping Relationship.
- 4.1 Internal consultants bear burden of preconceived misperceptions about track record–good or bad
- 4.2 External consultants usually have greater network of colleagues and resources to bring to the relationship

2.0 Negotiation of Contract

The work of this phase, which is a sub-set of the antecedent phase of the systems approach model, is to evolve a tentative contract between interested parties. It is imperative to spell out clearly the objectives, the plan of action, the roles and responsibilities of everyone involved, the nature of the summative and formative evaluation plans and finally the cost of the consultantship including whether it will be based on a "pay as you go" action plan or on a final project payment. Block's (1981) work on contracting is both amusing and informative and is useful reading to neophyte and intermediate level consultants who wish more insight into this arena.

1 Work Task or Process Focus: Establishing Desired Outcomes.
- 1.1 Establishment of realistically possible desirable outcomes
- 1.2 Preliminary written outcomes constitute a clear direction for collaborative working relationship

2 Work Task or Process Focus: Determining Roles and Responsibilities of Major Stakeholders.
- 2.1 Each party determines the depth of commitment for the change process
- 2.2 Consultant clarifies who will be involved and what levels of support for the change process will be given by client system
- 2.3 Client determines what kinds of involvement from the highest levels of the system will be exhibited

3 Work Task or Process Focus: Clarifying the Time Perspective and Accountability (Evaluation) Procedures.
- 3.1 Determination of length of time a collaborative process will take
- 3.2 Explanation of the intervention as an "educational process" for client system to learn how to solve its own problems
- 3.3 Determination of milestones at which relationship will be reviewed

3.0 System Penetration

The work of this phase revolves around the official entry of the consultant into the system. The requirements are for the consultant to get acquainted with the personnel, and begin exploring the problems and needs presented by the client system. At the outset the consultant must win the trust of system personnel by his/her straight forward answers and sense of openness to their fears, concerns, and resistance to change.

1 Work Task or Process Focus: Reestablishing the Tenets of the Helping Relationship with System Personnel.

1.1 Consultant continues developing meaningful helping relationship with lower echelons in the system to establish trust
1.2 Personnel assured their inputs to decision making is critical to the success of the change effort

4.0 Diagnosis of Problem or Need

The work of this phase is critical to the entire consulting process. The emphasis is upon gathering and interpreting sufficient data so as to formulate a diagnosis of the critical HRD problems within the client system. It includes, minimally, the scanning of the environmental context of the problems, and examining the impacting forces and systems influencing the problems. Some consulting models appear to eliminate this phase almost altogether or merely to do lip service toward it. It is equally amazing to note various consulting models begin at this step without the earlier steps of Preliminary Explorations, Negotiation of Contract, and System Penetration. Neither of these approaches is acceptable if an intervention is to be effective. In an earlier article the author (Londoner, 1993) identified six major diagnostic steps inherent in a systems approach. Each step has a number of sub-steps or components to guide the diagnostic team through the process.

1 Work Task or Process Focus: Form Collaborative Work Teams to Carry Out the Process.
    1.1 Establishment of "plenary planning team"
    1.2 Establishment of policy collaborative diagnosis
    1.3 Work teams formed to plan and conduct various parts of diagnostic activities
2 Work Task or Process Focus: Sharing the Data and the Analysis with the Rest of the System.
    2.1 Information about diagnostic findings shared back with people
    2.2 People are requested to make own judgments about what the data says the problems and needs are
    2.3 Further refinement of data based on input from the system

5.0 Goal Setting

This phase consists in the reviewing of all the data obtained from the diagnostic phase and then to establish goals that are specific, attainable, measurable, and realistic given the condition of the system and resources available. Sometimes planning teams have difficulty separating the goal setting portion apart from action planning (Dimock, 1993). This is critical, however, since the goals more or less become the re-established "mission" of the consultation and all the strategies will emanate from and be redirected back toward them to improve system functioning.

1 Work Task or Process Focus: Projecting the Goals.
    1.1 Determination of chronology of goals: short range (6 months to a year); long range (three years to ten years); strategic planning process (twenty five to seventy five year plan).
    1.2 Planning teams evaluate goals based on things they "wish" to achieve versus "must achieve" goals (Londoner, 1972, pp. 27-28)
2 Work Task or Process Focus: Writing the Goals in Precise Language.
    2.1 Adopt the precision goal language of behavioral psychology and systems engineering (operations research)
    2.2 Use **S–A–M** acronym for precise goal statements:
        S= specific goals written with action verbs
        A= attainable goals that can be reached, given system constraints
        M= neasurable or observable data indicating the goals have been reached

3 Work Task or Process Focus: Mapping out Team Responsibilities.
    3.1 Plenary planning team sub-divides the goals with members assuming responsibility for one or more goals
    3.2 Sub-teams recruit people from within system to assist in developing strategies to achieve the goals and monitor them
    3.3 Responsibilities spread throughout system to engender feelings of being stakeholders in the change process

6.0 Exploration of Intervention Alternatives and Selection of Appropriate Strategies

The work of this phase is to generate and weigh, against a set of predefined criteria, a series of solutions that could best achieve each of the selected goals (Londoner, 1972; Gallesich, 1986).

1 Work Task or Process Focus: Creating "Best Alternative" Selection Criteria.
    1.1 Goal planning teams create rigid set of criteria to weigh alternative solutions against
    1.2 Plenary planning team agrees on each goal planning team's criteria
    1.3 Each candidate solution is weighed against the criteria
2 Work Task or Process Focus: Selecting Best Candidate Solutions.
    2.1 Each goal planning team chooses best candidate solutions
    2.2 Goal planning teams share the candidate solutions with plenary planning team
    2.3 Plenary planning team synthesizes all goals and action plans
3 Work Task or Process Focus: Sharing Goals and Action Plans with System.
    3.1 Plenary planning team shares with rest of system the goals and action plans to create change process
    3.2 System personnel are invited to make inputs and modify plans where necessary
    3.3 System personnel are recruited to be part of change action plans

7.0 Implementation of Intervention

This is really a two stage procedure. A pilot test or mini intervention should be planned, monitored and evaluated to determine the feasibility of the larger intervention as well as to provide feedback for fine tuning the intervention strategies. Several of the goals may be selected for pilot testing and refinement. Once evaluated and corrections made, and if it is deemed feasible to continue, the entire intervention is implemented.

1 Work Task or Process Focus: Implement Pilot Test.
    1.1 Goal planning teams select several goals for mini testing
    1.2 Select action plans and roles/responsibilities of personnel are mapped out for mini-test
    1.3 Evaluation criteria to assess effectiveness of pilot is generated and applied
2 Work Task or Process Focus: Identify the Early and Middle Adopters of Change within the system.
    2.1 Early and middle adopters identified and enlisted because the welcome and embrace change quickly
    2.2 Identification of "laggards" to ensure they do not block change efforts
3 Work Task or Process Focus: Implement the Comprehensive Intervention.
    3.1 Negative results from pilot test can be re-run or intervention can be terminated
    3.1 Implementation of comprehensive interventions if pilot test data warrants
4 Work Task or Process Focus: Taking Successful Action.
    4.1 Goal planning teams identify required training skills essential to implementing their respective goal(s)

4.2 System personnel chosen and trained in requisite skills, attitudes and values essential to each goal's attainment
4.3 Planning teams create supportive and patient climate of change as system personnel struggle with change processes.

5 Work Task or Process Focus: Formative Evaluation of Results by Revising Action Plans, Acquiring Additional Resources, Reimplementing Strategies.
5.1 Goal planning team solicits continual feedback from processes and products to make modifications
5.2 Each goal realistic evaluated to determine whether or not they have changed in any way since their initial formulations
5.3 Goals should not be downward revised just to accommodate less effective goal achievement during intervention

8.0 Summative Evaluation of Outcomes

The work of this phase consists in measuring the entire planning process and is not limited to examining only goal attainment. Goals may or may not be attained for a variety of reasons, some of which may emanate entirely from early planning procedures and not necessarily from implementation procedures. A variety of evaluation models exist (CIPP, Stakes' model, Scriven's goal free analysis, etc.) and the consultant and client system should evaluate each to determine which one is most useful for their purpose. All goal planning teams must use the same model to assure a parity of evaluation data across the entire planning and implementation process.

1 Work Task or Process Focus: Choosing an Evaluation Model.
1.1 Plenary planning team examines various evaluation models to determine appropriateness of each to the intervention based on criteria created by team
1.2 One comprehensive evaluation model chosen to assure parity of data findings across all aspects of the intervention
1.3 Every goal planning team trained in the evaluation model's philosophy and procedures

2 Work Task or Process Focus: Applying a Comprehensive Evaluation Model.
2.1 Each goal implementation team trained in comprehensive evaluation model
2.2 Each goal implementation team creates appropriate data gathering instruments and procedures appropriate for evaluating their goal(s) action plans and achievements
2.3 Each goal implementation team analyzes the data in light of the evaluation model and creates a "summative evaluation report" on the achievement of their goal(s)
2.4 Summative evaluation report submitted to plenary planning team

3 Work Task or Process Focus: Creation and Sharing of Comprehensive Summative Evaluation Report.
3.1 Plenary planning team assembles and edits goal planning team summative evaluation reports into one document
3.2 Data on entire systematic planning process, including consultant performance is included in the document
3.3 Entire report is shared back with entire system in open meetings and in written form concerning the entire change process
3.4 Summary chapter in report entitled "lessons learned" details a compilation and summary of each goal's attainment as well as detailing the strengths and weakness of the entire change process

9.0 Stabilization and Implementation of Change

The work of this phase is to regain system equilibrium by habitualizing the achieved changes so the system does not slip back to previous levels of functioning. In Lewinian

(1951) thinking the purpose is to "refreeze" the system at the new level of equilibrium long enough for the system to regain its balance in its response to the "intervention disturbance."

1 Work Task or Process Focus: Designing and Establishing Institutional Supports.
  1.1 Three critical resources for institutional support of change exist: (1) Internal consultants, (2) Plenary planning team (3) The codifying of the change process in regulations, policy manuals and procedural manuals to ensure a corporate memory exist once the key administrative officials who supported the change process are gone.
  1.2 Support resources are used continually to re-establish equilibrium and ensure permanency of the change processes

10.0 Termination of Consultation

While the consultant-client system relationship may be terminated at any time throughout the model by either party, one assumes, in a successful change effort, that termination is at the end of the process. The work of this phase is a 'weaning' process in which the system takes full ownership for the success of the change effort and its independence from the consultant.

1 Work Task or Process Focus: Creating a Period of Disengagement.
  1.1 Bell and Nadler (1985) encourage slow withdrawal period to lessen abruptness of termination
  1.2 Period marked by testing whether the intervention is sufficient enough for system to achieve new level of equilibrium
  1.3 Period also marked by part-time involvement of consultant
  1.4 New ways of client-system consultant contact initiated via telephone, audio and visual conferencing
  1.5 Rituals and celebrations of successful change processes are helpful weaning procedures during this period.

2 Work Task or Process Focus: Closure.
  2.1 Procedures are established for the return of the consultant if required.
  2.2 Annual reviews are sometimes used for this process.

Summary

This paper introduced a new systems approach model for collaborative consulting in HRD settings. It explored the assumptions inherent in the systems approach, identified salient systems concepts HRD consultants should know for analysis purposes. It identified the relationships between the system components of antecedents, transactions and outcomes and various stages of the proposed collaborative HRD consulting model. Finally, it articulated, briefly, each phase of the model and identified specific work focuses within each phase.

The intent of this proposed model and systems approach for systematic change through planned collaborative interventions is to provide client systems and consultants with step-by-step procedures and guidelines to create healthy change with minimal disturbance to the system. The emphasis is upon proactive collaboration between all system stakeholders and the consultant so that the system assumes responsibility for the change process, analyzes the underlying problems and needs, identifies meaningful interventions, implements them and finally, evaluates the whole process. The consultant is seen as a co-partner and educational guide in the process but is not viewed as an "expert" who has given the system a solution. Rather, through the entire educational process of mutual interaction and influence, the system has arrived at its own solutions and has taken responsibility for changing its own ways of behaving

References

Bell, C. R. & Nadler, L. (Eds.). (1985). *Clients & consultants* (2nd Ed.) Houston: Gulf Publishing Company.

Chin, R. (1961, 1969). The utility of systems Models and developmental models for practitioners. In W. G. Bennis, K. Benne, & R. Chin (Eds.), *The planning of change* (2nd Ed.) NY: Holt Rhinehart And Winston, Inc.

Dimock, H. G. (1993). *Intervention and collaboration : Helping organizations to change.* San Diego: Pfeiffer & Company.

Gallessich, J. (1986). *The profession and practice of consultation*. San Francisco: Jossey-Bass Publishers.

Kaplan, A. (1964). *The conduct of inquiry*. Scranton: Chandler Publishing Co.

Kaufman, R. A. (1972). *Educational system planning*. Englewood Cliff, NJ: Prentice-Hall, Inc.

Lewin, K. (1951). *Field theory in social sciences*. New York: Harper And Row.

Lippitt, G. & Lippitt, R. (1986). *The consulting process in action* . (2nd Ed.). San Diego: University Associates.

Londoner, C.A. (1972). The systems approach as an administrative and program planning tool for continuing education. *Educational Technology* August, 1972, 24-31.

Londoner, C.A. (1993). A Conceptual Systems approach model for creating collaborative diagnostic procedures and strategies in HRD settings. *Proceedings: Quest for Quality* The First National Research Conference on HRD, Texas A&M University.

Parsons, T., & Shils, E. (Eds.) (1967). *Toward a theory of action*. Cambridge: Harvard University Press.

Stewart, J. (1991). *Managing change through training and development*. San Diego: Pfeiffer & Company.

Reading Manuals of Industry: Are They a Hazardous Material?

JOANN MARTIN, Texas A&M Univesity

Introduction

The importance of workplace literacy has been underscored by the undeniable link between basic skills and productivity. Daily reading is now a requirement of almost every job. Many jobs require higher levels of education, a trend that is expected to continue. The nation and industry are recognizing the connection between basic skills and competitiveness—of the United States in the global market, and of businesses and individuals seeking to improve their employment status. The increase of technology and other changes in management techniques will require a greater ability to read, write, and interpret instructions.

The Secretary's Commission on Achieving Necessary Skills (SCANS) report (U. S. Department of Labor, 1991) identified five competencies, which, in conjunction with a three-part foundation of skills and personal qualities, lie at the heart of job performance. The basic skills were listed as the first of foundation competencies required for success. The report emphasized that tomorrow's career ladders require the basic skills to take on a new meaning. The basic skills—reading, writing, mathematics and computational skills—will be essential in more diversified and expanded understanding.

Required Reading Levels

Current difficulty levels of occupational reading are quite high. Most research studies indicated average difficulty levels of job-related print to be at the high school level or above (Rush, Moe, and Storlie, 1986; Sticht, 1982b). Mikulecky and Diehle (1980) reported that written communication in the workplace is ubiquitous and at a relatively high level. This study examined 100 workers for a representative cross section of occupations ranging from executive vice president to forklift driver. Only two percent of the occupations examined required no reading or writing. Time spent reading print, charts, graphs, and computer terminals averaged nearly two hours daily. Difficulty levels of 70 percent of running prose reading materials used on the job ranged from ninth to twelfth grade levels (Mikulecky, 1982).

Johnston and Packer (1987), in *Workforce 2000*, reported that only four percent of the new jobs will be able to be filled by individuals with lowest levels of skills, compared to nine percent of jobs requiring such low skills today. At the other end of the scale, 41 percent of the new jobs will require skills ranked in one of the top three categories compared with only 24 percent that require such proficiency at present.

Patterson (1989) predicted that the literacy requirements of jobs will continue to increase. By the year 2000, the skills required of occupations are expected to average 16.7 years of education/training while the skills possessed by the labor force will average 14.9 years of education/training. Sixty-six to seventy-five percent of people in the labor force today will still be working in the year 2000. Many companies will be forced to retrain their employees.

Research Conducted on Reading Materials

Occupational Safety and Health Association (OSHA) regulations, as stated in corporate safety manuals, require understanding and compliance from employees.

Managers have reason to be concerned that accident rates, down-time losses, and promotion restrictions have been related to literacy deficits. Research conducted in three large industries included the assessment of occupational materials prose documents. The materials included those items that are common to all employees, such as the safety manuals and employee handbooks. The materials unique to each work area were assessed and reported in grade equivalents.

The three manufacturing industries of this study are located in two central states. The products produced by the three industries vary greatly; however, many of the OSHA procedures required for safety are common. Procedures for safety in the use of production machinery used in all three industries followed the basic regulations of OSHA. Material safety data sheets (MSDS) provide the information on use of hazardous and dangerous chemicals and are common to all business and industry.

For reporting purposes and to protect confidentiality the industries of this study will be identified only as Industry I-Paper Producer, Industry II-Electric Motor Producer, and Industry III-Automotive Belt Producer. The number of employees of each facility will provide important information in understanding the magnitude of the problem.

Table 1

Industries Identified

Industry	Production Process	Employees
I	Paper Mill-Processes Recycled Paper	1148
II	Electrical Motor Production	488
III	Automotive Belts (Maintenance/Safety Manual only)	700

Readability Formula

The level of reading required within the industries studied was established by applying readability formulas to occupational materials. The Gunning-Fog formula was utilized in the analysis of the documents. While controversy surrounds the use of readability formulas, the analysis of occupational materials serves as a guide for the skills needed in the workplace. In comparison to other formulas normed on children's reading materials, the Gunning-Fog formula was normed on adult reading materials. The Gunning-Fog formula is the choice of leading producers of materials written for adult education (Laubach and Koschnick, 1977).

Readability of Materials

The following charts reveal the materials analyzed, the range of reading levels and the mean expressed in grade equivalents. The range of the samples taken from each document must be considered carefully when determining whether it is hazardous for sections to be written at a level above high school.

Table 2

Reading Materials: Industry I-Paper Producer

Source	Range of Reading Levels	Mean
Personnel Handbook	10-19	16.3
Safety Manual	11-16	13.0
Training and Operational Manuals		
Shipping Checkers	12-14	13.0
Fork Truck Drivers	13-17	15.3
Folding Machine Operators	11-16	13.5
Pulp Paper Machine	9-15	12.0
Power Plant	10-14	13.0
Maintenance	15-16	15.5
Warehouse	12-18	16.0
Management Training	9-19	16.1
Management Safety	11-19	18.8

Table 3

Reading Materials: Industry II-Electrical Motors

Source	Range of Reading Levels	Mean
Personnel Handbook	12- 17	14.8
Safety Manual	9- 23	16.5
Benefits Handbook	10- 23	14.9
Training and Operational Manuals		
Shop Practices	9- 15	11.0
Maintenance Manual	8- 21	14.6

Table 4

Reading Materials: Industry III-Automotive Belts

Source	Range of Reading Levels	Mean
Handbook	10.0-27	17.2
MVB Maintenance Manual	8.9-15.3	12.8
MVSC Maintenance Manual	7.6-16.8	12.1
MVCBA Maintenance Manual	9.8-15.7	13.2
Safety - Lock-Out/Tag-Out	entire document	14.0
Safety - Confined Space	entire document	3.7

Safety procedures written above the high school graduate level were critical procedures in all industries. The procedures for shut down of equipment in need of repair is written from one to two years above the high school graduate level. Employees who do not comply with the hang-tag procedures for shut-down and start-up may be dismissed from their job on the first violation. While training may have taken place, the employees may jeopardize the life and/or safety by not being able to understand the procedures. The inability of employees to correctly read a maintenance manual can shut down production in all three industries. In Industry I-Paper Production the failure of the power plant costs one million dollars per hour of shut down due to a black out time. The black-out time can be reduced if the employee is trained to utilize alternate power procedures.

Readability levels of 70 percent of running prose reading materials used on the job ranged from ninth to twelfth grade levels in a study conducted by Mikulecky (1990). The readability of the occupational materials used in the study conducted was found to be above the range of Mikulecky's study.

The reading means of the required skill levels were reported and used in the analysis of information, but the range of readability in occupational materials may be more significant. While the mean required for all employees must be identified, the range of readability of materials was from seventh grade level to above college level of education. The ability of all employees to read and understand each section of the employee safety manuals may be distorted by observing the mean. While the manuals had some sections that most employees can readily understand, important procedures, which are critical to the employees' safety, were found to be written at a level difficult for many employees.

Conclusion

From the findings, the following conclusions were made:

- The required reading level of occupational materials was too difficult for at least one-third of the employees.
- The range of readability may be more important in evaluating occupational materials than the mean.
- Occupational materials may need to be rewritten, specifically the safety manual. While the safety manual had some sections that most employees can readily understand, important procedures that are critical to employees' safety were found to be written at a level difficult for many employees.
- If occupational materials were evaluated and rewritten, legal decisions would have to be made on procedures in the personnel handbook and safety manual. Procedures for specific work areas would require that all job tasks were included and confidential procedures protected.
- Required technical materials may be integrated in a basic skills program and instruction developed to promote understanding of the documents.

Other Relevant Research Findings

The researcher conducted other related research to complete the educational analysis. The level at which employees function was assessed by testing a random sample of employees in Industries I and II with the Test of Adult Basic Education (TABE). All maintenance employees of Industry III were tested with the TABE. Employees of Industry I and II were surveyed with an instrument designed to assess their perception of the use of basic skills in the workplace. They were also surveyed on other aspects of the basic skills.

Based upon the findings of this study, the researcher made further recommendations:

- A basic skills program needs to be developed and implemented for employees with a wide range of materials.

- Individualized programs of study need to be developed with basic skills presented through relevant or job-related information.

- All training should be delivered in a manner to accommodate the many levels at which the employees function.

- Reading materials must be written at lower levels if employee safety is involved.

Bibliography

Barton, P. E., & Kirsch, I. S. (1990). *Workplace competencies: The need to improve literacy and employment. Policy Perspective Series.* (Report no. IS-90-987). Washington, DC: U. S. Government Printing Office.

Chisman, F. P., & Campbell, W. (1990). Narrowing the job-skills gap: A focus on workforce literacy. In F. P. Chisman (Ed.), *Leadership for literacy: The national agenda* (144-170). San Francisco, CA: Jossey-Bass Publishers, Inc.

Chisman, F. P., & Campbell, W. (1990). Narrowing the job-skills gap: A focus on workforce literacy. F. P. Chisman (Ed.), *Leadership for literacy: The national agenda* (144-170). San Francisco, CA: Jossey-Bass Publishers, Inc.

Ehringhaus, C. C. (1990). Functional literacy assessment: Issues of interpretation. *Adult Education Quarterly, 40*(4), 187-196.

Johnston, W. B., & Packer, A. E. (1987). *Workforce 2000: Work and workers for the 21st century.* Indianapolis, IN: Hudson Institute.

Laubach, R. & Koschnick, K. (1977). *Using Readability.* Syracuse, NY: New Readers Press.

Lund, L. & McGuire, E. P. (1990). *Literacy in the work force.* (Report No. 947). New York, NY: The Conference Board.

Martin, JoAnn C.(1992). *A Study of the Required, Assessed and Perceived Basic Skill Needs in a Paper Mill.* (Doctoral dissertation, University of Arkansas, 1992).

Mendel, R. A. (1988). *Meeting the economic challenge of the 1990s: Work force literacy in the South.* Washington, DC: The Sunbelt Institute.

Mikulecky, L. (1982). Job Literacy: The relationship between school preparation and workplace actuality. *Reading Research Quarterly, 17*(3), 400-419.

Mikulecky, L. (1988). *Literacy for the workplace.* Bloomington, IN: Indiana University.

Mikulecky, L. (1990). Basic skills impediments to communication between management and hourly employees. *Management Communication Quarterly, 3*(4), 452-473.

Mikulecky, L., & Diehle, W. (1980). *Job Literacy: A study of literacy demands, attitudes, and strategies in a cross-section of occupations.* Bloomington, IN: Reading Research Center, Indiana University.

O'Donnel, H. (1988). Striving for functional literacy in the job market. *Journal of Reading, 31*(7), 74-76.

Patterson, M. (1989). *Workplace literacy: A review of the literature.* New Brunswick, Canada: New Brunswick Department of Advanced Education and Training, Fredericton.

Rush, R. T., Moe, A. J., & Storlie, R. L. (1986). *Occupational literacy education.* Newark, Del.: International Reading Association.

Sticht, T. G. (1982b). *Evaluation of the "reading potential" concept for marginally literate adults.* Washington, DC: Office of the Assisstant Secretary of Defense (Manpower, Reserve Affairs, and Logistics).

The National Center on Education and the Economy: Commission on the Skills of the American Workforce (1990). *America's choice: high skills or low wages!* Rochester, NY: The National Center on Education and the Economy.

U. S. Department of Labor (1991). *What work requires of schools: A SCANS report for America 2000.* Washington, DC: Secretary's Commission on Achieving Necessary Skills, U. S. Department of Labor.

U. S. Department of Labor, U. S. Department of Education, & U. S. Department of Commerce (1988). *Building a quality workforce.* Washington, DC: Government Printing Office.

U. S. Department of Labor,& U. S. Department of Education (1988). *The bottom line: Basic skills in the workplace.* Washington, DC: Government Printing Office.

Learning in Context: Creating the Learning Organization

KENNETH E. PAPROCK, Texas A&M University

This article can be referred to throughout in the same way as a scientific essay that was popularized in the field of mathematics and fractals by Benoit Mandelbrot (1977). It is a "composition dealing with a subject from a personal point of view and without attempting completeness" (1977, p.2).

Introduction

One major change that is recognized in the environment is that the workforce will grow more slowly. New entrants and those primarily between the ages of 16–24 will decrease substantially. Advances in technology and the information explosion are also impacting organizations. One major implication of the decreasing size of the workforce is that it will become increasingly necessary to maximize the potential of each individual worker. Fundamentally, Organizational Learning means managing an organization to enable learning that supports performance.

Senge(1990) defines a learning organization as an organization that is continuously expanding its capacity to create its future. Nadler (1984) refers to the way this is accomplished by referring to "learning communities." Nadler states that a learning community refers to groups of people within an organization engaging in a variety of activities which foster the concept of continuous learning.

Recently I came across a metaphor by an anonymous author which describes how this might look in an organization. The author starts off by saying, that next fall, when you see geese heading south for the winter flying along in a "V" formation, you should consider what science has discovered about this phenomenon. As each bird flaps its wings, it creates an uplift for the bird immediately following. By collectively flying in a "V" formation, the flock adds at least seventy-one percent greater flying range than if each bird flew on its own.

What can be learned from this is that people who share a common sense of community can get where they are going quicker and easier if they uplift one another.

When a goose falls out of formation, it immediately feels the drag and resistance of trying to go it alone, and quickly gets back into formation to take advantage of the uplifting power of the bird immediately in front. Geese honk from behind to encourage those up front to keep up their speed. When the lead goose gets tired, it rotates back in formation and another goose flies point. It pays to take turns doing hard jobs. And we can all benefit from the encouragement of others.

Finally, when a goose gets sick or is wounded and falls out, two geese fall out of formation and follow it down to help and protect it. They stay with their ailing counterpart until it is either able to fly again or until it dies. The geese will then launch out on their own or will fly with another formation until they catch up with their own group.

The flight metaphor contains those elements that can be found as characteristic of a learning organization or community. Members of an organization have formed a commitment to a shared vision; they feel that they belong together and that they make a difference. There is a shared leadership in which members practice genuine participation, sharing and jointly creating, not just "buying into" the status quo. They apply maximum flexibility—there are few rules to control behavior. And all ideas are elicited ideas, making full use of the creative abilities in the group.

While these ideals sound very attractive, creating a learning organization is itself a learning process. The creation of a learning organization is a somewhat unpredictable process. People will learn about what works best in their context and make adjustments accordingly if they are provided with the information and resources to do so. Perhaps a framework such as the one presented here can assist in clarifying the process and ensuring that areas needing attention are not missed. They cannot, however replace the learning, the adjustments, the uncertainties, the anxieties, and the risks involved in creating a learning organization.

Approaches to Learning

In the Fifth Discipline, Peter Senge (1990) provides a blueprint for building a learning organization. The first of the five disciplines is personal mastery. Personal mastery involves the notion that an organization's ability to learn depends on the learning of its individual members. And people with a high level of personal mastery are lifelong learners.

Traditionally there have been three approaches to learning. The first I call Theory X, the next two Theory Y and Theory Z. In order Theory X refers to the teaching of pre-adults (pedagogy). Theory Y refers to helping adults learn (andragogy). Theory Z is lifelong learning, involving learning from birth to death. It is not coincidental that these approaches are similar to management style theories, as both are based on the locus of control whereby decisions are made regarding the goals and means of learning.

Most adult educators and psychologists agree that one of the distinctive characteristics of adulthood is the willingness of individuals to assume responsibility for decisions that affect their lives. If control is a key characteristic of adulthood, then one way of conceptualizing lifelong learning is to use the concept of control as a basis for classifying the various types of lifelong learning. Spear and Mocker (1982) make use of this rationale by positioning all planned or deliberate learning on a continuum. At one end of the continuum is the type of learning over which the individual has virtually no control. At the other end is the type of learning for which the learner has almost total control. This latter type of learning is of prime interest. The learner may select, reject, add and change resources at will. The learner may also decide to continue or terminate the project, and finally determine the satisfaction or adequacy of the outcomes. Interestingly enough, many authors have pointed out that traditional education and a behavioristic approach to learning often decreases the desire to learn and may lead people to undervalue independent learning and overvalue authority.

Conditions of the Learning Context

Organizational learning involves expanding our thinking beyond work places as systems for production of services or goods to include the workplace as a context for learning. In this context, certain conditions seem to exist:

1. All knowledge is assumed to be tentative. There are no correct answers in the real world, and no ultimately verifiable answers. Adults in the real world live on and by tentative hypotheses and are willing to change the answers based upon new information.

2. What is perceived to be the "correct" answer by adults is more likely to be based upon tradition than upon rationality in the real world.

3. The solution to any problem in the real world involves logic and emotion. People may become emotionally committed to a play of action and ignore all logic.

4. In the real world, solutions to problems tend to have repercussions on other people and other things. If we bring about a change, we will effect others.

In dealing with the context and conditions of learning, Spear and Mocker (1984) have studied how and why learners choose particular resources and make specific decisions when their early analysis failed to detect evidence of conscious preplanning to learn.They comment on autonomous or self-directed learning as "being controlled by the learner and occurring in settings not expressly intended for educational activities" (p. 1). Their observations led them to question the concept of learning organizations. They questioned how self-directed learners get started and pursue learning if 1) they are not aware of the specifics to be learned and if 2) they have no plan for engaging in the learning process (1984, p. 3).

From the research, Spear and Mocker developed the concept of organizing circumstances . Using this concept, Spear and Mocker postulate that self-directed learners tend to select from limited alternatives which occur fortuitously within their environment, rather than preplanning their learning projects. The concept of the "Organizing Circumstance" defines those elements in the adult's life space that provide motivation, resources, activities, and overall direction to the learning.

Based upon field theory formulated by Kurt Lewin (1951) four patterns can be developed from the study by Spear and Mocker. These four patterns have provided categories that affect the learning process. The patterns are presented in brief with examples of each modal type. The categories are as follows:

Type I Single Event/Anticipated

A situation where the individual expects that learning will be required but has no idea of what must be learned nor specifically how it can be learned. The expectation is that the means will be available.

Type II Single Event/Unanticipated

Similar to Type I but most frequently seen in settings where tasks are performed by people repeatedly and frequently. People are not expected to be (nor do they anticipate being) engaged in the learning process. They vicariously accumulate an acute awareness of the knowledge and skills associated with a new level of competence by observing and interacting with others.

Type III Series of Events/Related Learning

This category gives the erroneous appearance of a linear process directed toward a goal. The sequence is unanticipated, and is composed of several related episodes that provide unexpected organization for the episode that follows.

Type IV Series of Events/Unrelated Learning

This category develops over longer periods of time than Type III and from a number of separate and unrelated settings. Catalogues of related information provides the organizational structure when there is a decision to learn a skill in a particular area.

Two central themes that run throughout the development of learning organizations are adaptation and anticipation. To be adaptable requires the ability to change in response to changing circumstances. It also implies submitting to and even succumbing to certain circumstances. A simple summary might be Learning leads to Change, Change leads to Adaptation, and Adaptation leads to Survival. The categories help to point out circumstances that can lead to learning.

Evolution of the Learning Organization

It is useful to review Woolner's (1991) developmental model of learning organizations for facilitating the transition of an organization into a learning organization.

Stage I - Informal Learning

This stage can be associated with the start-up phase of an organization's life. All attention is focused on production or on the services it needs for survival. This stage is characterized by a great deal of trial and error experience that make the business viable. Time and money may be too limited to give attention to training and learning.

Stage II - Learning as a Consumable

Here learning becomes a felt need when the realization grows among organizational members that there are levels of performance which are beyond the current capacity of its people. The most common triggers are growth, crisis and competition. Having had little or no experience in the management of learning, it appears that organizations at this point often choose to treat learning as a consumable item and go about purchasing it as they need it, just as they have purchased other needed products and services from suppliers.

For the most part, organizations will not use informal learning experience as a starting point. One speculation as to why this occurs is that external programs are familiar to most people. It is familiar like classroom education. There may be a comfort level in familiarity, but learning acquired through external programs can atrophy quickly. Learning here is short-term. The risk is low, and learning is focused on the individual.

Stage III - Bringing Learning Inside

A growing awareness within the organization of issues about learning which cut across a part or the whole organization causes the need for educational programs which are tailored and designed for the organization's context. There is risk here of fragmentation of programs, some of which may be unrelated and contradictory, and others which will be overlapping and redundant. There is also a tendency to move from one "flavor of the month" to another.

Stage IV - Identification of an Organization Learning Agenda

Here there are more clear links established between the strategic goals and directions for the organization and the learning agenda that will be required to support it. This stage brings the organization closer to the integration of work and learning than any of the previous stages. This also implies that human resource development or training and development must be in on the strategic goals and plans of the organization to be most effective.

Stage V - Integrating Work and Learning

An organization moves to this stage when the leadership realizes and becomes committed to the movement of learning, as much as possible, out of the classroom and into the day-to-day work environment. This type of learning brings maximum benefit to the organization. It is explicit and planned compared to the informality of Stage I. Learning becomes the responsibility of line management and of work teams.

As with any model, real life is not always as neat and sequential. However, by paying attention to the development and context of an organization and the learning by its individuals, a trainer can help facilitate and accelerate the movement toward a learning organization.

References

Cartwright, D. (Ed.) (1951). *Field theories in social sciences: Selected theoretical papers by Kurt Lewin*. New York: Harper & Row.

Mandelbrot, B. (1977). *Fracıals: Form, chance, and dimension.* San Francisco: W.H. Freeman.

Nadler, L. (1984). *The handbook of human resource development.* New York: John Wiley & Sons.

Senge, P.M. (1990). *The fifth discipline*. New York: Doubleday.

Spear, G.E. and Mocker, D.W. (1984). The organizing circumstance: Environmental determinants in self-directed learning. *Adult Education Quarterly* Vol. 35, No. 1, pp.1-10.

Woolner, P. (1991). *Integrating work and learning*. Commission of Professors of Adult Education Annual Conference. Montreal, Quebec.

Mentorship as a 21st Century Paradigm for Enhanced Individual Development within Human Resource Development Programs

MARTHA J. MORGAN SANDERS
CARLA A. BOUSKA LEE
Fort Hays State University

Abstract

A multidisciplinary pilot study investigated mentorship, an age-old phenomenon now re-emerging as a paradigm potentially addressing complexities of individuals' needs for development within complex organizations and societies, especially those in the rural setting.

Introduction

Mentorship is an age-old phenomenon that derives its name from the person chosen to mentor the son of Odeyess and Penelope, Telemachaus. Mr. Mentor was assigned to this role, it is conceptualized in Greek mythology, to instruct, guide, advise and assist Telemachaus.

Mentorship is an ongoing process, both formal and informal, in which individuals, considered to have particular expertise and talents, facilitate the development of another individual. This process may be employed based on personal identity or identification of need to advance one's self in the natural and normal growth and development process, i.e., parents and other family members. Moreover, mentoring may be a characteristic of the role of teacher or educator as these professionals enable and empower others to strive for their highest potential and achievement. The facets of the educational process utilize many of the principles of mentorship.

Review of Literature

Although it may be informal, mentoring has been employed regularly to facilitate the development of persons in work settings, business, academia, and research centers. The employment of this strategy is believed to have many advantages and impacts. Clark and Zimmer (1989) stated that the protege or mentee was the recipient of "knowledge, personal support, protection, and promotion." They also noted "the mentor derives benefits from the relationship, such as assistance on the job, information, loyalty, and prestige" (p. 26).

Both academia and industry employ mentorship as a strategy for personal enhancement, as well as for increasing productivity. The master, with expert skills, shares his/her knowledge, talents, abilities, skills, and aptitudes to the benefit of the mentee. Mentorship may be a strategy to utilize for persons with special addressments, i.e., women in academia, minorities seeking empowerment in industrial settings, and individuals that lack concrete and sophisticated research skills.

In academia, Cullen and Luna (1992) reviewed types, styles, and functions of the mentoring process with special emphasis for women. It is noted that women in management are very limited and purported that insufficient opportunity for mentoring has existed because of the paucity of senior women to mentor junior women.

Operationally, the term mentor has been defined several ways. It is a developmental relationship that utilizes interaction (usually junior and senior colleagues) which promotes professional and career development (Cameron, 1978; Healy & Welchert, 1990; Kram and Isabella, 1985; Levinson, 1978).

Clark and Corcoran (1986) defined mentoring in terms of sponsorship, networking, or role modeling. However, some perspectives discern it as sponsor or patron, which is a term more appropriate for individual career development when the focus is primarily that of the organization.

In mentorship processes, studies have focused upon same-gender membership or cross-gender entanglements. Cullen and Luna (1990) reported a study showing the lack of availability of women to mentor other women. Knox and McGovern (1988) questioned whether the role of mentoring women was paralleling that of men.

Kram (1986) reported a hierarchy of mentoring functions. Kram defined two functions in the hierarchy of mentoring: career and psychosocial. Cullen and Luna (1990) utilized the Kram model to review the importance of both components in women mentoring programs. Career is perceived also as opening a door, raising a glass ceiling or breaking through an arch. Sponsorship, coaching, and advice giving, are seen as key features in professional skill building, major components of the psychosocial functions. Additional functions include role-modeling, counseling, friendship, acceptance, and confirmation. Rapport was established which lead to willingness to explore personal and professional problems. Burk's (1984) research noted females reported that mentors provided psychosocial functions while male mentees reported that career choices dominated.

Institutional research, which did not address academia or women, noted the results of mentoring for institutions. Mentoring is seen as playing a key role in developing people for future organizational leadership. Attrition may be reduced through a sense of fulfillment in the work setting (Cullen & Luna, 1992).

Purpose of the Study

The purpose of the study was to explore the characteristics (demographic and behavioral) of the mentees in both formal and informal mentoring arrangements for undergraduate students and graduate students. Furthermore, the study describes the demographic characteristics of the mentees, their learning styles, communications methods, and personal behavior styles. The study addressed patterns of the mentoring process in regard to timing and triggering event(s) that may have prompted the seeking of a mentor.

The primary questions addressed in this pilot study were:

1. What were key characteristics of the mentees, both demographically and behavioral?
2. What were the learning styles?
3. What were the behavioral/communication styles?

Methodology

The methodology for this 1993 pilot study utilized a survey to determine the behavioral/communication and learning styles of mentees as well as the demographics of mentees and related to mentees from rural settings, predominately in northwest Kansas. The study investigated relationships of specific factors to mentor selection and the development of subsequent mentoring and communication patterns of formal and informal mentoring activities in western Kansas.

Population

The population used in this study consisted of registered nurses (RN) in standing courses. They were divided into two groups by the educational level attained. Group One was comprised of RNs who were undergraduate students in a Kansas baccalaureate nursing program of which all were female. Group Two was comprised of RNs who were graduate students in a Kansas family nurse practitioner (FNP) program of which there was only one was male respondent.

Instrumentation

This pilot study utilized several research instruments for data collection and an investigator-constructed demographic instrument. They were: (a) Kolb's Learning Style Inventory (LSI), (b) Personal Profile Systems (PPS), an inventory which classified behavioral/communication styles, (c) Gregorc Style Delineator (GSD), (d) Strong-Campbell Interest Inventory (SCII), and (e) demographic survey.

Learning Style Inventory (LSI).

The LSI, Kolb's integrated model of learning styles, was used to identify the learning style of both groups of students. The self-descriptive instrument,i.e., how you view yourself as a learner, focuses primarily on experiential learning and measures the different learning styles. The two basic dimensions are abstract-concrete and action-reflection. It identifies four predominant learning styles which are:

1. Concrete Experience (CE), emphasizes personal involvement with people in every day situations where the learner tends to rely more on feelings than on a systematic approach to problems and situations, and on ability to be open-minded and adaptable to change;
2. Reflective Observation (RO), emphasizes people understanding ideas and situations from different points of view, where the learner tends to rely on patience, objectivity and careful judgment but would not necessarily take any action, and on own thoughts and feelings to form opinions;
3. Abstract Conceptualization (AC), involves using logic and ideas, rather than feelings, to understand problems or situations, and would rely on systematic planning and development of theories and ideas to solve problems; and
4. Active Experimentation (AE), takes an active form, experimenting with influencing or changing situations, has a practical approach and a concern with what really works, as opposed to watching a situation, and values getting things done and seeing the results of their influence and ingenuity.

Personal Profile system (PPS).

The PPS presents a plan to help the respondent understand self and others in the specified environment while learning about the differences of others and the environment they require for maximum productivity and harmony. It is a self-administered, self-developed instrument. The PPS is a communication tool which can open the door to greater understanding of self and others in order to build and maintain a sense of personal worth and self-esteem through the identification of behavioral styles, i.e., (a) dominance, emphasizes shaping the environment by overcoming opposition to accomplish results; (b) influencing of others, emphasizes shaping the environment by bringing others into alliance to accomplish results; (c) steadiness, emphasizes cooperating with others to carry out the task(s); and (d) compliance (to their standards), emphasizes working with existing circumstances to promote quality in products or service. Furthermore, it proposes to significantly improve the upward success spiral of individuals.

Style Delineator (GSD).

The GSD by Gregorc identifies the dominant style characteristics of four behavioral styles, e.g., concrete sequential (CS) which are instinctive, methodical, deliberate, and structured in thinking processes; abstract sequential (AS) which are intellectual, logical, analytical, and rational in thinking processes; abstract random (AR) which are emotional, psychic, perceptive, and critical in thinking processes; and concrete random (CR) which are intuitive, instinctive, impulsive, and independent in thinking processes.

Demographic information.

The demographic inventory, designed by the investigators and judged by a panel of experts, identified triggering events and timing in seeking a mentor. In addition to the characteristics of the mentee, it also identified the communication flow between the mentor and the mentee.

Data Analysis

Fifty-eight students completed a four-part survey comprised of: the LSI, PPS, GSD, and demographic information. The response rate was 82% and indicated the type of mentor, personal or professional, varied by characteristics and factors of the student. Both groups favored the "Steadiness" behavioral style (PPS) and the "concrete sequential" style (GSD), while their learning styles (LSI) differed. The undergraduate RN students favored the "abstract conceptualization" (AC) with "reflective observation" (RO) a close second, while the graduate RN students favored "active experimentation" (AE) for their learning style.

Group One identified the triggering event as: job change, relocation, professional crisis, and personal crisis in descending frequency. The most frequently identified as a trigger event by Group Two was job stress/dissatisfaction/conflict and professional crisis followed by job change. Furthermore, the study identified the flow of communication for both groups flowed both directions, that is from mentee to mentor and from mentor to mentee on a regular basis.

Recommendations

The findings of this pilot study indicate further investigation of the characteristics in the relationship of mentees and their mentors and their communication and learning styles is needed.

It is recommended the mentors' learning and behavioral styles be assessed for likeness, differences, and compatibility with their mentees' learning and behavioral styles.

The correlation of the learning and behavioral styles and the communication characteristics, especially in the rural setting, is indicated.

Summary

The literature indicate mentoring plays significant roles in successful completion of adult learners' programs. This research, a pilot study, indicated that mentorship is very important for individual development. In personal and/or professional development, both undergraduate and graduate student nurses rely on mentors to advance their career and educational experiences.

From this pilot study it was determined that some life event, personal and/or professional, triggered the selection of a mentor. The emphasis of both groups of RN students was on the cooperation with others to carry out tasks (steadiness) and is of importance for mentees for individual development and of importance to the human resource development arena. The learning style of the graduate RN students relied on "reflective observation" which emphasized understanding ideas and situations from different viewpoints and utilizing their own thoughts and feelings to form opinions. However, the undergraduate RN students relied on "abstract conceptualization" which involved using logic and ideas, rather than feelings, to understand problems or situations, and on systematic planning and development of theories and ideas to solve problems.

Human resource development practitioners need to "Creatively Explore the Future" to help individuals develop to their potential by providing available mentors who are able to guide, coach, consult, role model, sponsor, open doors, and network with and for their mentees. Through the development of individuals will come the greater development of the organization.

References

Burk, R. J. (1984). Mentors in organizations. *Group and Organizational Studies, 9*(3), 353-372.

Cameron, S. (1978, March). Women in academia: Faculty sponsorship, informal structures, and career success. Paper presented at AERA annual meeting, Toronto, Canada.

Clark, S. M., & Corcoran, M. (1986). Perspectives on the professional socialization of women faculty. *Journal of Higher Education, 56*, 20-43.

Clark, R. W., & Zimmer, B. P. (1989). Mentoring: Does it work? *Lifelong Learning: An Omnibus of Practice and Research, 12*(7), 26-28.

Cullen, D., & Luna, G. (1992). Mentoring women in academe: Implications for academic chairs. *Academic Chairpersons: Celebrating Success*, Proceedings of Ninth Annual Conference, Orlando, FL, Center for Faculty Evaluation & Development, Kansas State University, Manhattan, KS, 39, 47-53.

Healy, C. C., & Welchert, A. J. (1990). Mentoring relationships. *Educational researcher, 19*(9), 17-21.

Knox, P. A., & McGovern, T. V. (1988). Mentoring women in academia. *Teaching of Psychology, 15*(1), 39-41.

Kram, K. E. (1986). Mentoring in the workplace. In R. A. Katzell (Ed.), *Career development in organizations* (pp. 160-201). San Francisco: Jossey-Bass.

Kram, K. E., & Isabella, L. A. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of Management Journal, 28*, 110-132.

Levinson, D. (1978). *The seasons of a man's life*. New York: Knopf.

Workplace-Reasonable Accommodation Training

LINDA L. SEIFERT, University of Arkansas

The Americans with Disabilities Act of 1990 (ADA) is a federal anti-discrimination statute. The purpose of the Act is to remove barriers which preclude qualified individuals with disabilities from enjoying the same employment opportunities that are available to persons without disabilities. In 1990 President Bush signed ADA into law giving Civil Rights protection to individuals with physical or mental disabilities. These rights are comparable to those provided individuals by the Civil Rights Act of 1964. The Civil Rights Act of 1964 prohibits any consideration of personal characteristics such as race, color, national origin or sex (ADA H).

ADA takes a different approach to ensure admission to equal employment opportunities based on merit. When an individual's disability creates a barrier to employment opportunities ADA requires employers to consider if reasonable accommodation could eliminate the barrier. The Act established a procedure through which the employer must assess an individual's ability to perform essential functions of a specific job held or desired (ADA H).

The ADA consists of five parts or Titles. Title I is Equal Employment Opportunity for individuals with disabilities. Title II is nondiscrimination on the basis of disability in state and local government services. Title III is nondiscrimination on the basis of disability by public accommodations and in commercial facilities. Title IV addresses communications. Title V contains miscellaneous provisions.

Title I of ADA presents the greatest initial consequences for employers. The effective date of Title I is July 26, 1992, for both public and private employers with twenty-five or more employees. Those employing 15 or more will be covered as of July 26, 1994. Title I of ADA directs the Equal Employment Opportunity Commission (EEOC) to generate administration standards for the workplace. The EEOC regulations prohibit discrimination against qualified individuals with disabilities. The regulations require individuals with disabilities be given equal opportunities for employment (ADA H).

Types of Disabilities

The ADA guidelines divide disabilities into three parts. An individual must satisfy at least one of these parts to be covered under ADA. An individual is considered to have a disability if there is either a (1) physical or mental impairment, which substantially limits one or more of that person's major life activities, (2) has a record of such an impairment or (3) is regarded as having such an impairment" (Federal Register).

Physical or Mental Impairment

Adopted from section 504 of the Rehabilitation Act, ADA defines "physical or mental impairment as any physiological disorder or condition, cosmetic disfigurement or anatomical loss affecting one or more of several body systems or any mental or psychological disorder" (ADA H). Physical handicaps consist of medical disorders such as epilepsy, paralysis, hearing or vision handicap; cosmetic disfigurement, severe damage or loss of a body part or system. Individuals with AIDS or HIV positive are all protected by ADA. Mental impairments include mental illness, retardation, learning disabilities, and psychological disorders (ADA H).

Record of Impairment

The determination of an individual mental or physical disability is not necessarily established based on the name or diagnosis of the impairment, but rather on the consequence of that impairment on the existence of the individual. An individual with a "record of impairment" which significantly limits a primary life activity is an individual with a disability. The classification is to guarantee that individuals with a history of a disabilities are not discriminated against because of an erroneous perception. The provision gives protection to cancer patients in remission from elimination of employment opportunities because of prior medical history. There are other individuals not impaired, who have been misclassified as learning disabled, who are also protected under this provision (ADA D).

Regarded as Impaired

An individual "regarded as having an impairment" must meets this classification through one of three methods: assumption of impairment, perception of an impairment, or relationship with an impaired person. An individual may have an impairment that is significantly restricting because of others' attitudes. In illustration, a competent computer programmer with a severe facial disfigurement may be displeasing for other employees, but employers cannot deny employment to an individual on this basis. If otherwise qualified this "assumption of an impairment" constitutes a disability governed by the ADA (ADA H).

Qualified Individuals

EEOC regulations recommend the employer first evaluate prospective or present employees without regard to the disability. Employers should match the individuals's personal and professional attributes to ones required to accomplish the task. If the most qualified individual has a disability the employer is obligated to make requested reasonable accommodations which permits the individuals to perform the essential function of the position held or desired. In addition, reasonable accommodations are to be made to ensure equal opportunity in the "application process, equal benefits and privileges of employment as those enjoyed by employees without disabilities (ADA H).

Examination Or Test

Examinations must be work related and have a business requirement. Examinations which are intended to eliminate disabled individuals are illegal. All examinations must measure work related competencies, experiences, or aptitudes, rather than considering manual, speaking, hearing, or visual impairments of the employee. Tests designed for a position and not administered equitably for all applicants is a foundation for legal proceedings. Accommodations may be required to guarantee that tests evaluate applicants equally. Employment test administered to disabled applicants or employees must be in a format that does not require the use of the impaired skill such as impaired sensory, manual, or speaking.

When accommodating an individual with a disability tests may require a format in braille, large print, or assistance from a translator or given orally. Allowing a disabled individual more time for test completion is an accommodation unless the requirement is speed. Other alternate formats include evaluating the skill to be tested through an interview, possession of a license, or work experience.

Essential Job Functions

The most distinctive element of ADA requires employers to identify essential job functions. Employers must determine which are nonessential or marginal with regard to job performance. Accurate job descriptions formulated before advertising or interviewing are evidence of essential job function identification. The statute permits employers to determine which job functions are essential and which are marginal. Employers have the responsibility to guarantee that all requirements are performed in the workplace and not used as a disqualifier. Job functions that serves a legitimate business requirement is permissible under the EEOC regulations (ADA H).

Job Descriptions

Accurate job descriptions should substantiate essential functions and be used to determine legitimate business requirements. Job descriptions are an important tool in thejustification of employment practices (ADA H). Each step required in preparing a job description should be written "SMART": they should be specific, measurable, attainable, realistic, and tangible .

A job description should begin with the job title. The purpose of the job should be specific and accurate. Obviously the title "assistant manager" is not as specific as "bookkeeper" for a job where the essential function is to record receivables (Federal Register).

Duties, tasks, and steps are next determined. Job assignments may include a number of separate tasks which are specific and tangible. Work tasks are performed elements required to accomplish the duties or function of a job. Tasks can be further reduced to steps. Job steps are specific and measurable actions that accomplish the task. After job duties are determined each responsibility must be termed "essential" or "marginal". Employer's judgement based on business needs and experience will classify each duty. An essential function is defined by EEOC as "a fundamental job duty" (Federal Register).

EEOC does not attempt to second-guess an employer's analysis of essential duties. According to EEOC guidelines, factors that determine essential functions are the employer's judgement, and written job descriptions formulated before advertising or interviewing. Also, the amount of time spent performing the function, the consequences of not performing the function, the terms of a collective bargaining agreement, and work experience of past employees in the job or current employees in similar jobs are factors.

When all essential functions are identified, several questions need to be asked of each function, such as, "If this function were eliminated would it fundamentally alter the position?" or "Does this function require highly specialized competence or expertise to accomplish ?" After following this deliberation procedure employers should be honest with themselves. The answers could generate a creative approach overlooked before to accomplish the work. These new approaches could save time and resources for the employer (Federal Register).

Production Standards

Employing individuals with a disability does not require giving concessions to manufacturing standards. But identifying elements of the task leads to deciding appropriate standards of job performance. Job standards are referred to in the EEOC regulations as quantitative and qualitative production standards.

Qualification Standards

ADA legislation did not establish quotas for employers to satisfy. There are no regulations mandating that employers utilize disabled individuals who cannot satisfy the required qualifications standards. The job description should specify required standards for a specific job title. These standards are personal and professional qualities individuals must possess to qualify for a position.

Reasonable Accommodation

Employers are required to take measures to allow a qualified applicant with a disability to perform the job with reasonable accommodations. Employers are required to accommodate only a "known" disability. However, if the individual does not request an accommodation the employer is not obligated to provide one (ADA H).

Training

The answer to effective training is to involve the individual with the disability in the planning process. A successful technique is to first explain the procedure for the training session. Then describe the materials to be distributed and the expectations of the trainees. The trainer should then ask questions such as "Is there any accommodations you need?" "How can we guarantee accessibility for you?" "How can we make this learning experience more beneficial?"

A strategy employed by some companies is to develop a committee of disabled employees to advise on training concerns from the trainee's viewpoint. Frequently, lower-cost accommodations are recommended by these committees. Employers' making assumptions about which accommodations are necessary can be expensive because no accommodation may be needed. An effective and reliable training technique is to ask the disabled individual what accommodations are needed (ASTD).

Evaluation Of Training

Designing training presentations for specific types of disabilities such as vision impairment or learning disabilities is of little benefit, because all trainees do not require the same accommodations. Employers that provide in-house training may want an outside consultant to conduct an annual performance evaluation. The organizations' intent to comply with ADA will be denoted by this additional endeavor. Evaluation should focus on elements requiring immediate attention, elements that require addressing within one year, and areas that are already successful. The evaluation should focus on general policies, procedures, and practices, assessment tools, and management's awareness of ADA.

Incentives Tax Credits

The elimination of employment barriers is advantageous for both employers and individuals with disabilities. Employers can receive tax credits for their effort to comply. Section 44 of the IRS code provides assistance for small businesses by paying up to 50 percent of the expense required to provide access or equipment to an individual with a disability. The code provides a maximum tax credit of up to $5,000 per year.

Another tax credit is allowed under Section 190 of the IRS code, "architectural and transportation barrier removal deduction." Businesses can receive up to $15,000 per year for creating accessible facilities. The job tax credit allows a deduction of up to $2,444 for hiring an individual with a disability. An allowance is provided for each individual employed (Federal Register).

Conclusion

Individuals with disabilities are now America's greatest untapped human resource. Business and industry are encountering competition and are requiring employees to make recommendations for productivity improvements and to perform as team players. Whereas, individuals with disabilities are prepared to make recommendations for improvement and are more than willing to operate as a team player. They are only asking for an opportunity to contribute their expertise and talents in the workplace and not a handout.

Employers should concentrate on the individual's qualifications "first" and disability "second." The key to adherence to ADA and EEOC regulations is to focus on the "ABILITY", not the "DIS" (Killion, 1993).

Bibliography

Americans with Disabilities Act Handbook (1991). Published by the Equal Employment Opportunity Commission and the U. S. Department of Justice, Washington, D. C.

Equal Employment Opportunity Commission (1991). *Federal Register* Part V, 29 CFR Part 1630, Equal Employment Opportunity for Individuals with Disabilities; Final Rule and 29 CFR Parts 1602 and 1627, Recordkeeping and Reporting Under Title VII of the Civil Rights Act of 1964 and the Americans with Disabilities Act (ADA); Final Rule

Architectural and Transportation Barriers Compliance Board (1991). *Federal Register*, Part II, 36 CFR Part 1191, Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Transportation Facilities; Amendment to Final Guidelines.

Killion, Ann Marie (1993). A trainer with disabilities meet the ADA: A "changing" personal perspective. *FOCUS*, ASTD Disability Awareness Network, Alexandria, Virginia.

Modeling Argyris' Action Science

TOM SHINDELL, University of Texas at Austin

Abstract

To address the problematic lack of clarity and completeness in Chris Argyris' action science, this study utilizes theoretical model building (Dubin, 1969) to answer three questions about Argyris' (1985) action science: 1) What are the essential components of action science:? 2) What are the laws of interaction? and 3) Is there a connecting model of action science? Three essential components are identified, nine laws of interaction are proposed, and a connecting model is presented.

Introduction

As human resource development practitioners and scholars search for more effective means to intervene systemically to increase individual and organizational learning and problem-solving capabilities, one approach clearly stands out - Chris Argyris' action science (see Senge, 1990, for the importance of action science). Action science is one of the few intervention methodologies that articulates processes for affecting both individual and organizational behavior in meaningful ways.

Action science is a collaborative inquiry process designed to challenge underlying assumptions and frames of reference by exploring individual and organizational reasoning in ways which encourage the use of valid information, public sharing and testing of ideas, thoughts, feelings, opinions, and hunches in order to shed new light on old problems, especially very difficult or seemingly intractable problems (Argyris, Putnam, and Smith, 1985).

Problem Statement

Although Argyris has written numerous volumes articulating the complex and intricate concepts and ideas of action science, many scholars (Smith, 1971, Brief, 1983, London, 1983, Torbert, 1983, Williams, 1987, and Watkins, 1988) have identified a gap in the literature critiquing Argyris for his lack of clarity and completeness. This lack of clarity and completeness are significant because they impede the 1) testing and refining of action science, 2) adopting and utilizing of action science, and 3) assimilating of action science concepts into the broader literature of human resource development.

Methodology

Attempting to address the lack of clarity and completeness of action science, three questions were posed: 1) What are the essential components of action science? 2) What are the laws of interaction among the components? and 3) Is there a model that connects the essential components? To explore answers to these questions, theoretical model building was the methodology used.

Theoretical model building operating at the middle-range level of theorizing (see Merton, 1968) was used to develop a model which is "academic" in style and "interpretive" in type (see Kaplan, 1964). The enactment of this methodology involved a five-step process.

In the first step, the essential components of action science were identified. A selected sample (seven of Argyris' texts) was analyzed and an initial list of fifty-seven possible components was reduced to three essential components after consulting with an expert practitioner/researcher of action science, Dr. Karen Watkins.

In the second step, analytic definitions which serve to clarify concepts (see Hemple, 1964) were developed. This was accomplished by tracing the development and articulation of each of the essential components identified through Argyris' many book-length writings over the past forty-three years.

In the third step, real definitions which serve as precise operationalizations (see Hemple, 1964) were developed. This was accomplished by applying Dubin's (1969) eight-step process to each of the three essential components identified.

Dubin's first step is to identify and define the units [the most elemental components that comprise a theory/model which can be enumerative, associative, relational, statistical, or summative in type]. The second step is to identify and define the laws of interaction [the linkages, connections, or relationships between and among the units of a model which can be categoric, sequential, or determinate in type]. The third step is to identify and define the boundaries [the limiting values on the units comprising the model]. The fourth step is to identify and define the system state(s) [defined by a) all of the units of the system having characteristic values, b) the characteristic values of the units being determinate, and c) the units existing through time]. The fifth step is to identify and define the propositions [the "if...then" truth statements which apply only to the specific theory or model under study]. The sixth step is to identify and define the empirical indicators [the operations employed by a researcher to secure measurements of values on a unit]. The seventh step is to identify and define the hypotheses [the predictions about values of units of a theory/model based upon the propositions]. The eighth step is to revise the theory/model and develop future tests.

In the fourth step, a real definition integrating the essential components was developed. This was accomplished by using each of the essential components as units for another real definition.

In the fifth step, an integrating model was developed. This was accomplished by modeling the real definition developed in step four.

Results

For the first question (What are the essential components of action science?), three essential components were identified. The first essential component is the ***Ladder of Inference***, a schematic representation of the way in which individuals and individuals within organizations make sense of and interpret events in order to make meaning and to know how to proceed behaviorally. The Ladder of Inference is composed of four "rungs" or "levels" of abstraction. The first level is the "relatively directly observable data" which is equivalent to what is actually said or done and could be retrieved with an audio or video recorder. The second level is the "cultural meaning" which is equivalent to the meaning anyone from a similar cultural context (same town, organization, division, etc.) would assign to the activities occurring at the first level. The third level is the "personal meaning" which is equivalent to the idiosyncratic meaning assigned by individuals based on their reasoning at the fourth level. The fourth level is the "personal theories-in-use" which is equivalent to the often tacit or taken-for-granted assumptive reasoning individuals use to interpret, manage, cope, and enact in their world.

The second essential component is ***Model I and Model II*** (both at the individual and organizational level). Model I and Model II are predictive models outlining specific values/beliefs leading to certain strategies/tactics leading to determined outcomes/consequences. Model I behaviors produce unreflective trial and error learning that Argyris calls "single-loop learning" (providing little or no problem solving and learning). Model II behaviors, however, produce reflective, transformative learning that Argyris calls "double-loop learning" (providing effective problem solving and learning).

The third essential component is ***Defensive Routines*** (both at the individual and organizational level). Defensive Routines depict the reasoning and strategies used to protect constructions of reality from perceived threats to their continuance. There are two types of Defensive Routines: A and B. Type A Defensive Routines permit some learning and problem solving while maintaining a construction of reality. Type B Defensive Routines prevent learning and problem solving while maintaining a construction of reality. Defensive Routines allow individuals and organizations to maintain their current self-perceptions in the face of conflicting or disconfirming information while at the same time preventing their awareness that this clever "self-deception" is occurring. Examples of Defensive Routines include such activities as "fancy footwork" (taking a position and then repeatedly switching to another when the current position is found lacking), and "face saving" (unilaterally deciding to protecti another's feelings).

For the second question (What are the laws of interaction among the components?), the second step of Dubin's theoretical model building process yielded one sequential and eight determinate laws of interaction. The first law is sequential and states the reasoning and meanings created in the four-rung ***Ladder of Inference*** as output occur before either: 1) ***Model I or Model II*** beliefs are embraced or 2) before a threat is perceived to a construction of reality which begins a ***Defensive Routine***.

The second law is determinate and states a highly inferential negatively distorted meaning output (rungs three or four) from the ***Ladder of Inference*** greatly increases the likelihood by individuals and organizations of ***Model I*** behaviors or ***Defensive Routines*** occurring.

The third law is also determinate and states highly inferential positively distorted output (rings three or four) from the ***Ladder of Inference*** greatly increases the likelihood of ***Model II*** behaviors or ***Defensive Routines*** occurring in individuals or organizations.

The fourth law is determinate and states reasoning which is not highly inferential or abstracted (rungs one or two) from the ***Ladder of Inference*** increases the likelihood in individuals and organizations that ***Model II*** behaviors can occur.

The fifth law is also determinate and states the more explicit individuals and organizations are about their reasoning on the ***Ladder of Inference***, the less likely it is they will enact ***Defensive Routines***.

The sixth law is determinate as well and states the less explicit individuals and organizations are about their reasoning on the ***Ladder of Inference***, the greater the likelihood individuals will enact ***Defensive Routines***.

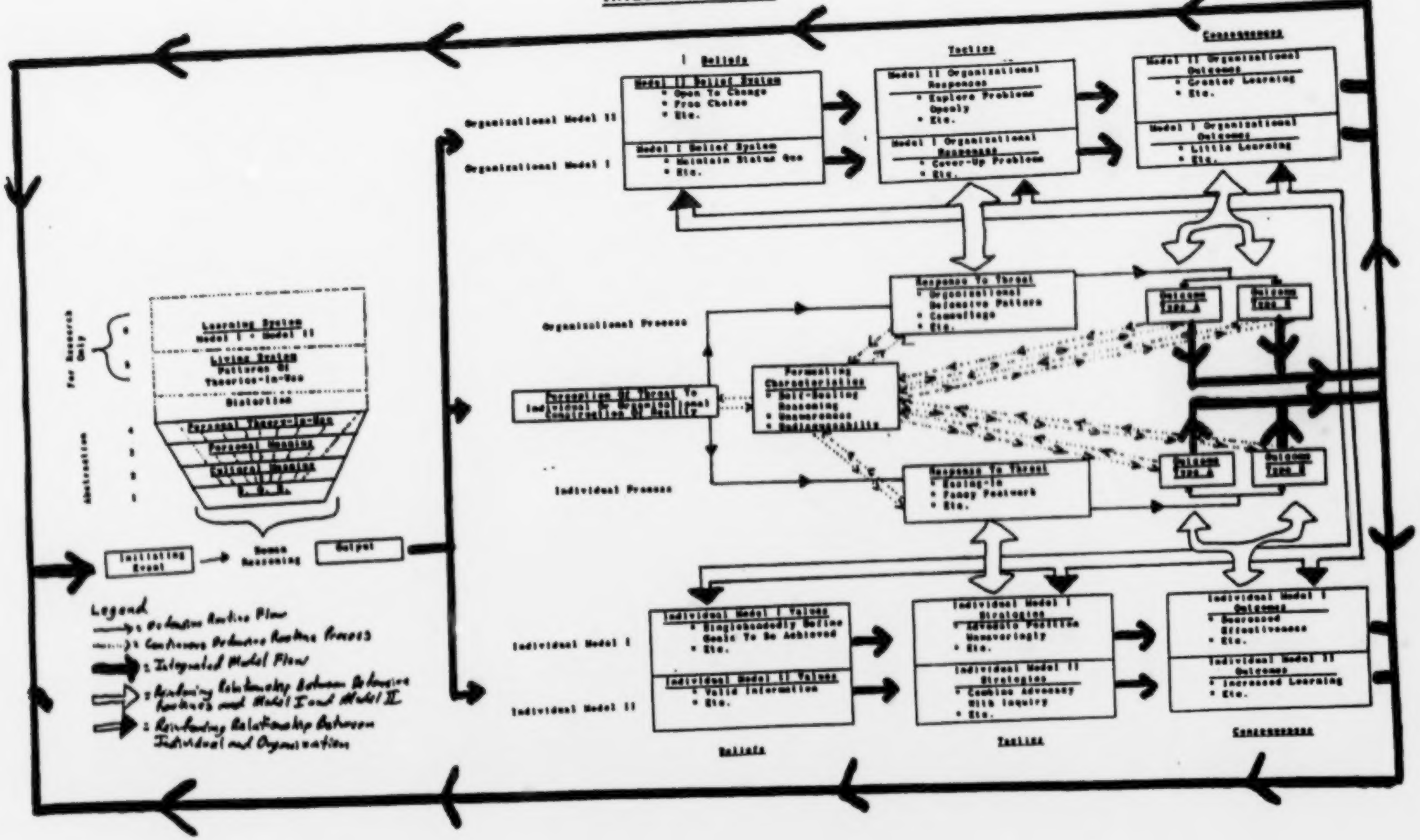
The seventh law is determinate and states the Consequences (from ***Model I*** or ***Model II*** individual or organizational behaviors) or Outcomes (Type A or Type B from individual or organizational ***Defensive Routines***) serve as the initiating event for the ***Ladder of Inference***.

The eighth law is determinate as well and states individual and organizational ***Model I*** behaviors influence, reinforce, and perpetuate individual and organizational ***Defensive Routines***.

The ninth law is determinate and states organizational behaviors (***Model I, Model II***, and ***Defensive Routines***) and individual behaviors (***Model I, Model II***, and ***Defensive Routines***) influence and reinforce each other.

For the third question (Is there a model that connects the essential components?), a new connecting model for the three essential components identified was developed. This model (Figure 1) depicts the laws of interaction described in the second question.

INTEGRATING MODEL


Beliefs
Tactics
Consequences
Organizational Model II
Organizational Model I
Model II Belief System
• Open To Change
• Free Choice
• Etc.
Model I Belief System
• Maintain Status Quo
• Etc.
Model II Organizational Responses
• Explore Problems Openly
• Etc.
Model I Organizational Responses
• Cover-Up Problems
• Etc.
Model II Organizational Outcomes
• Greater Learning
• Etc.
Model I Organizational Outcomes
• Little Learning
• Etc.
For Research Only
Abstraction
6
5
4
3
2
1
Learning System
Model I + Model II
Living System
Patterns Of Theories-In-Use
Distortion
Personal Theory-In-Use
Personal Meaning
Cultural Meaning
D. O. D.
Initiating Event
Human Reasoning
Output
Organizational Process
Individual Process
Perception Of Threat To Individual Or Organizational Construction Of Reality
Personality Characteristics
• Self-Sealing Reasoning
• Unawareness
• Undiscussability
Response To Threat
• Organizational Defensive Pattern
• Camouflage
• Etc.
Response To Threat
• Easing-In
• Fancy Footwork
• Etc.
Outcome Type A
Outcome Type B
Outcome Type A
Outcome Type B
Individual Model I
Individual Model II
Individual Model I Values
• Singlehandedly Define Goals To Be Achieved
• Etc.
Individual Model II Values
• Valid Information
• Etc.
Individual Model I Strategies
• Advocate Position Unwaveringly
• Etc.
Individual Model II Strategies
• Combine Advocacy With Inquiry
• Etc.
Individual Model I Outcomes
• Decreased Effectiveness
• Etc.
Individual Model II Outcomes
• Increased Learning
• Etc.
Beliefs
Tactics
Consequences
Legend
= Defensive Routine Flow
= Continuous Defensive Routine Process
= Integrated Model Flow
= Reinforcing Relationship Between Defensive Routines and Model I and Model II
= Reinforcing Relationship Between Individual and Organization

BEST COPY AVAILABLE

Limitations

The researcher is aware of at least three limitations in this study: 1) the investigator, 2) the current state of action science, and 3) methodology. First, this research depended on the investigator's ability to understand and synthesize the theory studied (action science). Second, action science is still evolving (Argyris is still writing and refining his thoughts and ideas) so any attempt to clarify and refine is limited. Third, while action science attempts to integrate positivistic, post-positivistic, and critical theory perspectives, Dubin's methodology is clearly positivistic in its perspective and is thus limited in its ability to fully embrace all of action science.

Discussion

The findings in this study are important for three reasons. First, the model developed in this study can assist individuals who are learning action science. As Putnam (1990) found, individuals learning action science have a need to integrate the action science concepts they have learned. This model can facilitate that integration.

Second, the model developed in this study is important to the field of human resource development for three reasons. First, the model provides a visual representation of both effective and ineffective approaches to learning and problem solving. Second, the model integrates a complex methodology/approach to intervention making it accessible to both trainers (for learning situations) and organizational developers (for intervention situations). Third, within the model is a visual representation of defensive behaviors which can impact both individual and organizational learning programs as individuals "sabotage" or "inhibit" Total Quality Management, Continuous Quality Improvement , etc. efforts.

Third, the model developed in this study provides many hypotheses and propositions for researchers and scholars in their exploration of the ongoing development of action science.

Conclusion

This study grew out of a deep admiration, interest, and respect for Chris Argyris' work called action science. Wishing to address a gap identified in the literature as both a lack of clarity and completeness, the researcher identified three essential components of action science and nine laws of interaction. An integrating model of the three essential components was also presented. Finally, the limitations of the study and its contribution to the field of human resource development were discussed.

References

Argyris, C., Putnam, R., & Smith, D. M. (1985). *Action science*. San Francisco: Jossey-Bass.

Brief, A. P. (1983). The inner contradictions of double-loop learning. [Review of *Reasoning, learning, and action: Individual and organizational*]. *Contemporary Psychology, 28* (5), pp. 354-355.

Dubin, R. (1969). *Theory building*. New York: The Free Press.

Hemple, C. G. (1964). Fundamentals of concept formation in empirical science. In O. Neurath, R. Carnap, and C. Morris (Eds.), *International encyclopedia of unified science*, 2 (7). Chicago: University of Chicago Press.

Kaplan, A. (1964). *The conduct of inquiry: Methodology for behavioral science*. San Francisco: Chandler Publishing Company.

London, M. (1983). [Review of *Reasoning, learning, and action: Individual and organizational*]. *Personnel Psychology, 36* (1), pp. 123-126.

Merton, R. K. (1968). *Social theory and social structure*. New York: The Free Press.

Putnam, R. W. (1990). Putting concepts to use: Re-educating professionals for organizational learning. (Volumes I and II). *Dissertation Abstracts International* (University Microfilms No. 9021131).

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: A Currency Book, Doubleday.

Smith, R. P. (1971). [Review of *Intervention theory and method: A behavioral science view*]. *Educational Leadership*, 28 (7), pp. 771-773.

Torbert, W. R. (1983). [Review of *Reasoning, learning, and action*]. *Harvard Educational Review, 53* (2), pp. 226-229.

Watkins, K. (1988). [Review of *Action science*]. *Adult Education Quarterly, 39* (1), pp. 53-57.

Williams, L. K. (1987). [Review of *Action science*]. *Contemporary Psychology*, *32* (6), pp. 563-564.

Exploring the Impact of Human Factors Technology in Human Resources Development

FERDINAND TESORO, University of Houston

Objective

The objectives of this presentation include the following:

1. Define the role of human factors/ergonomics in human resource development;
2. Describe the importance of human factors in maximizing productivity and reliability;
3. Identify the effects of cumulative trauma disorders (CTD's) or repetitive motion injuries in the workplace;
4. Discuss the results of an ergonomic study conducted at a laundry company; and
5. Generate recommendations for HRD programs based on the results of this study.

Human Factors in HRD

Human factors (HF), or ergonomics, is defined as the study of human-technology systems and how the system components—people, technology and environment—interface in order to maximize system productivity.

HF plays an important role in an organization's human resource development program. Since it is the responsibility of HRD to provide a workplace environment that is conducive to employee growth and development, the organization has to institute an ergonomic program which caters to the physical, social and economic needs of its people. This is especially true if new technologies and machines are installed for employee use. A successful HF program patronizes the slogan, HONOR THY USER.

A number of accidents have attributed the lack of human factors and human errors for the loss of lives and property. The most notable examples include:

1. The Three-Mile Island Nuclear Power Plant accident which investigators claimed were due to shallow training programs, inappropriate simulations, faulty design, slow printers, and poor controls,
2. The recent accidental firing of a Turkish submarine due to a "missile training accident", and
3. An airplane crash in Milwaukee which was traced to the accidental activation by a 6' engineer of a switch in the ceiling of the cockpit designed for 5'6" personnel.

Cumulative Trauma Disorder

One of the tangible effects of poor human factors, or the lack of an ergonomic program, is the prevalence of cumulative trauma disorders (CTDs) or repetitive motion injuries in the workplace. These occupational illnesses directly impact the safety and health of the workforce and prevent them from producing at peak performance.

There has been a dramatic increase in the occurence of cumulative trauma disorders (CTDs) or repetitive motion disorders due to ergonomic hazards. In 1991, the Bureau of Labor Statistics found that 60% of new cases of occupational illness were related to CTDs. As a result, the Occupational Safety and Health Administration (OSHA) began a nationwide program in 1990 to help reduce or eliminate worker exposure to ergonomic hazards. The program coordinated efforts involving enforcement, information, training, cooperative programs and research. OSHA is currently developing guidelines for ergonomic and health management standards that cover all industries.

Research Study on Ergonomics in the Laundry Industry

To identify high risk operations in the manufacturing industry, the injury and illness records from a local linen and uniform service company were reviewed and analyzed. From these data, potential risks of CTDs were recognized and appropriate recommendations were suggested and implemented.

This research study collected, reviewed and analyzed 271 cases of occupational accident and injury data in a sponsored company from 1989-91. The data were based on number of injury cases, lost workdays, and average lost workdays per injured employee from different operations and demographic factors (e.g., age, gender, length of body injured, nature of injuries, and accident type).

Results of the Study

The results of this investigation are summarized in three tables. These data include incidence of injuries and lost workdays, severity of injuries, and a discomfortability investigation.

Incidence of Injuries and Lost Workdays

Table 1 reveals that the jobs which caused the most lost workdays were flatwork workers, maintenance mechanics, pressers, route salesmen, soilroom workers and warehouse workers.

Severity of Injuries by Categories

Table 2 shows the severity of injuries categorized by different workers. The results show that injury severity increased gradually for people less than 40 and decreased for those over 40. The injury cases and lost workdays for male employees were significantly higher than those of female employees, although the latter constitute the majority (63%) of the workforce. The average number of lost workdays per injured employee was higher for females than males. The data discrepancy is due to the fact that male employees work on higher risk operations such as maintenance, washer operation, warehouse operation and route sales.

The data also show that route salesmen suffer most of the severe injuries. These injuries occurred mostly in the back, the upper extremities and the lower body. These disorders are attributed to inappropriate working postures, inaccurate lifting techniques and overexertion in handling loads.

The severity of injuries of different parts of the body indicated that the trunk, including the back and the lower extremities, accounted for the highest number of injuries and lost workdays.

The number of injuries for those employed for less than one year was higher than those with longer experience. On the other hand, the average number of lost workdays per injury was higher for senior employees (more than five years experience) than other age groups.

Discomfortability Investigation

A discomfortability survey was conducted by interviewing 86 employees from the company. Each employee was asked about the severity of the discomfort classified on a scale of 1 to 5 representing "mild" to "severe" discomfort.

Table 1. Incidence and severity of different operations

Type of Occupation	Number of Cases	Number of Lost workdays*
Checker	1	0
Clerical	2	1
Counter Sales	1	0
Data Entry Clerk	1	2
Dry Cleaning Worker	1	0
Engineer	6	77
Extractor	5	28
Flatwork Worker	21	652
Fleet Manager	2	0
Fleet Shop Mach.	3	4
Folder	5	10
General Manager	1	0
Hot Shot Driver	2	34
Janitor	2	27
Laundry	6	9
Linen Control	1	0
Maintenance Mechanic	22	347
Marker	1	0
Mending Operator	1	0
Net Assembly	1	0
Packout Operator	8	74
Plant Supervisor	1	60
Presser	16	99
Production Manager	1	0
Q.C. Inspector	4	0
Route Salesman	65	938
Service Supervisor	13	6
Shipping (Loading Dock)	1	0
Silk Finisher	1	1
Soilroom Worker	30	184
Soilroom Supervisor	2	0
Tumbler Operator	1	1
Warehouse Worker	19	88
Warehouse Supervisor	1	0
Washroom Supervisor	12	0
Washroom Worker	20	164
Others	1	0
Total	271	2806

* The number of lost workdays includes compensable injuries and illness for days away from work and days of restricted work activity due to injury.

Table 3 shows the number of employees in each department who experienced discomforts in the different parts of the body.

The Flatwork Department, which comprised the largest workforce, reported that employees experienced the most discomfort in the lower extremities and the trunk. The reason cited for this was the lack of stools or standing support during work hours. The shoulder and upper extremities also had higher percentages of muscle discomfort in this department.

Statistics collected during this discomfortability investigation are shown in Table 4. The data show that in the Flatwork department half of the employees (50%) experienced discomfort in the upper back. The most severe discomforts were experienced in the neck, upper arms and buttocks.

Conclusions And Recommendations

Based upon the results of this study, the following recommendations were generated:

1. Develop an overall company policy regarding human factors on the job. Communicate the importance of using sound ergonomic principles in performing tasks.
2. Install expert systems to monitor ergonomic injuries and incidences of cumulative trauma disorders. An example of this package that is already commercially available is EASY-L which is composed of four modules: ergonomic information, job descriptions/statement of minimum qualifications, ergonomic consultation and discomfortability analysis.
3. Reengineer job designs to integrate job rotation and other work techniques to minimize repetitive motions.
4. Conduct training, especially for new employees, on appropriate postures, methods of lifting, etc.
5. Cross-train employees to reduce highly repetitive jobs.
6. Revise work schedules to include shorter forced breaks and simple exercises on the job.
7. Conduct time and motion studies to determine degree of repetitions on the job.
8. Develop a standardized, comprehensive ergonomic program for the laundry industry to be recommended to OSHA for possible implementation.

Table 2. Severity of injuries by various factors

Factor	% of total number of cases	% of total lost workdays	Avg. no of lost workdays
Age [% work force]			
19 & below [3.0]	2.7	0.7	2.6
20 - 29 [40.9]	32.6	27.6	8.9
30 - 39 [27.0]	39.4	49.1	13.0
40 - 49 [20.0]	17.8	21.4	12.6
50 & below [9.1]	7.5	1.2	1.6
Gender			
Male [37.0]	64.3	67.0	10.8
Female [63.0]	35.7	33.0	9.6
Length of Service			
less than 1 year	47.5	48.7	10.7
1 year to 2 years	27.5	28.0	10.6
3 years to 4 years	8.7	4.6	5.5
5 years or more	16.3	18.7	12.1
Part of Body Injured			
Head (eyes, face, etc.)	14.8	6.0	4.6
Neck, Shoulder	5.5	0.4	0.7
Total Upper Extremities	(31.4)	(12.2)	(3.85)
Arm	8.1	5.5	6.6
Wrist	3.0	0.3	1.1
Hand	10.0	5.6	5.6
Finger	10.3	0.8	0.8
Trunk (including back)	18.8	41.5	26.7
Total Lower Extremities	24.0	19.4	7.8
Multiparts (e.g., arm & leg)	4.8	20.5	43.5
Others	0.7	0.0	0.0
Nature of Injuries			
Burn (by heat)	4.4	5.2	10.7
Crushing and Bruise	16.2	8.8	5.3
Cut, Laceration, Puncture	14.8	4.7	3.2
Joint Inflammation or Irritation	11.0	0.0	0.0
Scratches, Abrasions	4.4	0.1	0.3
Sprain, Strain	39.1	54.9	14.1
Fractures	7.0	21.7	34.5
Others (e.g., dermatitis)	13.0	4.6	3.7
Accident Type			
Struck against	27.2	13.0	4.9
Fall	17.7	35.2	20.2
Caught in, under, etc.	10.6	7.3	7.0
Overexertion	(26.9)	(25.4)	(9.6)
Lifting	10.6	16.5	15.9
Pulling / Pushing	7.2	2.9	4.1
Other Materials Handling	9.1	6.0	6.6
Others (e.g., auto accident)	17.6	19.1	11.0

Table 3. Body discomfortability data

	Flatwork (52)	Uniform (4)	Packout (3)	Towel Fold (6)	Soilroom (10)	Soilbelt (4)	Washing (7)	Total (86)
Neck	3		1		3		1	8
Shoulder	14	1	2	1	4	2	3	27
Upper Back	4	1		1	2	1	2	11
Upper Arm	3	1	1		2	1	2	10
Mid Back	8			1				9
Lower Arm	4		1				1	6
Hand / Wrist	8							8
Lower Back	15	1	1	2	1	1	2	23
Buttock	1	1						2
Thigh	3							3
Knee	4							4
Legs	12	1			5	1	1	20
Feet	10	1	1					12

[ ] indicates the number of employees in the department

Table 4. An example of discomfortability statistics table.

Total # of Subjects = 16 Department: Flatwork Data: 11/9/92

	Discomfortability Scale							
Mild <=	1	2	3	4	5	=> Severe	# of Subject	% of Employee
Head				1			1	6.25%
Neck			1	2	2		5	31.25%
Shoulders	2	1	1	1			5	31.25%
Upper Arms		2	1	2	1		6	37.50%
Lower Arms				2			2	12.50%
Wrists / Hands	1	1					2	12.50%
Upper Back		1	4	3			8	50.00%
Mid Back	2		2	2			6	37.50%
Lower Back		1	2				3	18.75%
Buttock		1		1	1		3	18.75%
Thighs	2	1	1	1			5	31.25%
Shanks			1				1	6.25%
Feet			1				1	6.25%

Women Academics and their Careers: The Impact of Creativity

ANN YAKIMOVICZ, Texas A&M University
MARGARET INGRAM, Texas A&M University

The concept of a career path has been based on the experiences of the majority of labor market participants. Typically a one-shot decision, it was perceived to have a definite beginning and a celebrated ending, proceeding ever upward. For most, the choices were clear. The career path started with high school studies, moved next to on-the-job training or college, and to a profession or technically-based career, culminating in retirement and the infamous gold watch. Because of the focus and the power structure within most organizations, this career ideal was based on the experiences of many men, while a woman's development was of little interest to scholars and corporate decision makers.

Women have traditionally lived lives of fluidity and discontinuity, or contingent lives (Bateson, 1990), with careers woven into issues and demands of their households. Women's lives often resemble a mosaic of activities and are sculpted with personal persistence and the necessary resolution of conflicting demands on their time and attention (Bateson, 1990). The true experience of women who work is that many choose to work full-time, many are the sole support of themselves and their households, and dual careers are the reality for the majority of home partnerships.

Researchers who have studied the development of women point out that women do not follow any set and predictable progression of career. Gilligan noted that women, operating from positions considered lesser to those of men, are often forced into satellite or peripheral career choices (1982). Moreover the voices and expectations of society influence women's career decisions, as well as specific people. Belenky, Clinchy, Goldberger, and Tarule, (1986) wrote of the societal expectations for women, and how women develop their individual "voices", integrating the many messages that they hear—and listen to—from many different sources.

Today a career is a composition of many interests, values and choices. The boundaries of circumstances, financial considerations, and life roles place rigid barriers on a career path. Many women have become particularly ingenious as they strategize their careers in spite of, and in relation to, these varying personal and professional barriers in order to achieve the next desired career move. It is this creative element that adds flavor and personal relevance to the career path, and it is this element of creativity that we researched.

Reviewing the literature on these convergent topics, we found many sources on women's development, the differing career paths of men and women, and the unexpected twists and turns that compose a typical life for today's career woman. From books and articles on women in business settings, the glass ceiling, and differing management styles, we discovered that women and their career paths are objects of scrutiny on many fronts. And within the wealth of books on creativity, we reviewed the sources on creativity in the workplace, learning and creativity, and the books on becoming more creative. However, we felt that the possibilities of related topics only skirted the issues of successful women and their well-developed creativity. Women are emerging influential players in the labor force, with predictions of a new status in all phases of work (Aburdene, P. and Naisbitt, J.,1992). How does creativity play a part in their life choices and their career plans?

Goal-setting is often a tool for an upward career path, but it can also be an important tool for a path that is lateral, full of surprises, and sometimes obscure (Helgesen, 1990). Goals can be guides, wings, or leashes, depending on individual interpretation. It would seem that a woman with a highly developed creative outlet would be more flexible and imaginative in setting goals and in planning a strategy for achieving those goals, and one of the purposes of this study was to investigate this assumption. Career influences, stress management, issues of inspiration, and the relation, and inter-relation, of creativity and a well-directed career were questions that shaped our investigation.

The questions about career paths of women with a well-developed creative endeavor in their lives were approached by scheduling interviews with women in institutions of higher education who actively practice and value a creative outlet. We were interested in finding the relationship of their creative practices to their work, their decision-making process, and the importance of creative "flow" as they envision and shape their work world. The career planning process is unique, imaginative, and fulfilling at best; pedantic, predictable and unsatisfying at worst. We wanted to know how these women expressed themselves through their chosen creative field, and whether this creativity translates to the opening up of their planning and imagining abilities.

Methodology

We chose to focus on self-described successful women academics who actively pursue creative endeavors in music, visual arts, and kinesthetic arts apart from their academic responsibilities in teaching, research, and service. Using electronic mail queries and word-of-mouth contacts, we identified seven women in different academic settings to participate in a qualitative study. The participants in our study were women with well-developed careers who were devoted to the pursuit of a creative outlet in a significant way, with validation of their serious approach through performance, product, composition, or recognition from their peers. Using a semi-structured interview schedule (see Appendix), we talked with these women over a period of two months, then transcribed and analyzed the data using the Ethnograph software to help us elicit emerging themes.

Findings

We uncovered nine themes in our analysis:

1. Activity- how the participant describes what she does for creative activities,
2. Career- how she describes what she does for "work",
3. Impetus- why she creates, what driving forces propel her,
4. Influence- the effect of others on her creative activity; how she uses creative activity to affect others,
5. Interaction- how she describes the relationship between creative activity and work,
6. Connection- how she describes the relationship between creative activity and the rest of her life, beyond work,
7. Philosophy- how she defines and explains the meaning of creativity,
8. Process- how she details the working of the creative process as she uses it, and
9. Rewards- what she gains from conducting creative activities.

These are the threads which led our interviewees to make career decisions, plan the activities of their complex lives, and include time for their creative activities, such as study, lessons, compositions, new ventures, and performance and practice sessions.

We encountered significant emotional outpourings as an accompaniment to the discussions of creativity. Our participants revealed unexpected passion and rich descriptions about the importance of their creative selves. Beyond work, creative activity added a dimension of meaning for each of them. An English professor who takes time each time to play and perform her music said with emphasis that she will not work in the summer because, "Music is my life...it is what makes my life worth living!" Another professor, a counselor specializing in career issues, reported with emphasis that she finds time for her creative endeavors because "I must tend to my creative self for life to be worth anything!" This impetus was universal: each of the interviewees expressed similar feelings toward her creative passion. This theme of meaning added to the rewards of creativity.

However, this passion for the creative process was reflected differently by some of the women in the consideration of the frustrations and the demands of time and energy required to pursue a creative effort. Most of the academic women reported that the relationship between career and creativity was a negative one, as the demands of a well-developed career prevented them from spending time on their more enjoyable and inspirational creative activity. Conversely, one professor with an intensive, energetic personality and a complicated and demanding schedule framed this problem of timing as a question of motivation: she feels that her creative ambition drives her at work and pushes her to higher achievement, causing her to schedule her activities even more efficiently. This need for "finding time," either frustrated or achieved, focuses awareness on including creativity in each woman's life.

A theme of connection also appeared: a relationship was reported by many between creative efforts and primary relationships or other creators. Interviewees reported much collaboration and cooperation. This was illustrated through creative pursuits in tandem or as a member of creative groups. Several of the participants spoke of playing and singing with others as the most enjoyable of their experiences, to the point of seeking out a supportive co-performer to practice and play with, whether a husband, child, neighbor or musical or artistic colleague. Another relationship was that of functioning in a creative way and feeling a part of the human condition. One professor spoke of her singing and the feelings that came up and were expressed through this activity as "Keeping me human, keeping me in touch with people and with my human side". While she may be inclined to be "all business" at work, her singing keeps her in touch with emotions.

The primary aspect of the rewards theme is the relationship of creativity and groundbreaking. One professor in the Midwest reported that her painting has helped her develop an ability to "look outside the box, to take a different look at the possibilities, to see things differently." She also reports that she feels that her art "has helped her to be more willing to take on a challenge now." Asking "what if" questions is one of the characteristics that carries over and interacts with her work, according to one of the women. The ability to welcome change and challenge was supported by these women; as reported by Bepko and Krestan, creative women report becoming "willing to say yes to whatever may come next" (1993, p.205).

The persistence of being steadfast while pursuing a goal, of being driven toward a vision, describes what we heard and characterized as impetus. One participant reports that the discipline, planning and practice required to learn and perfect a creative outlet can be constructed as similar to the determined pursuit toward development necessary to follow a career path to a successful pinnacle or to meet new challenges as work. "I also am more willing to take on a challenge now because I know it will push me beyond my own self-imposed limits," said one of the artists, reflecting a theme of ambition, development, and pushing the edges of knowledge, confidence and skill to new achievement.

The definitions of creativity and the creative process inspired serious response and revealed a great deal about the participants. Examples ranged from "the highest

BEST COPY AVAILABLE

manifestation of human intellect, marked by the development, by the reorganization or transformation of something into a new entity" to "developing a unique perspective, or the combination of ideas in unique ways to create something new" to "generating something from inside yourself that is novel, unique, and original." A universal theme was that of difference, uniqueness, something done or performed in a new way, or in a way that has not been done before. These women, experts in both a scholarly and a creative domain, were highly cognizant of and deliberately using a creative process throughout their lives.

Speaking with these women about their creativity, we realized that we were receiving information from a sacred dimension within these individuals, from a tender place related to their feelings and the expression of those feelings. From our interviews with the participants, we were excited about the similarities and the universal themes that emerged from this research process, but respectful of the differences of the individuals and their points of view about their creativity. The personal revelations of these women about their creative endeavors and the relationship to their career paths provided a rich and emotional basis for study.

References

Aburdene, P., and Naisbitt, J. (1992). *Megatrends for women.* New York: Villard Books.

Bateson, C. *Composing a life.* (1990). New York: A Plume Book.

Belenky, M.F., Clinchy, B.M., Goldberger, N.R., and Tarule, J.M.(1986). *Women's ways of knowing.* New York: Basic Books, Inc.

Bepko, C., and Krestan, Jo-Ann. (1993). *Singing at the top of our lungs: women, love and creativity.* New York: HarperCollins.

Gilligan, C. (1982). *In a different voice.* Cambridge: Harvard University Press.

Helgesen, S. (1990). *The female advantage: women's ways of leadership.* New York: Doubleday Currency.

Appendix

Interview Schedule

1. How do you define creativity?
2. What kind of creative activity do you do?
3. How long have you been doing this?
4. How did you get started?
5. What or who influenced you to choose the particular activity that you do?
6. When did you start working in your career field?
7. Was this before or after you began creative activities?
8. What is the inspiration for your creativity?
9. Has your inspiration changed over time? How?
10. How long did it take you to become mistress of your medium?
11. Once you gained control of your medium and were able to shape the creative process to your inspiration, how did that affect your career work?
12. How would you describe the relationship between your creative activities and your career?
13. How do you define yourself in relation to your creative activity and your career?
14. What is the purpose of creativity activity for you?
15. How do you use creative activity?
16. Why do you continue to be involved in creative activity?
17. How does your creative activity affect your adult growth?
18. Describe your creative activity in relation to the rest of your world.
19. What is currently shaping your creative activity?
20. What are your future plans/goals for creative activity?

Author Contact Information

Bolin, Barbara, Ph.D.
Benchmarking Training—The Road to Continuous Improvement
Dell University
Dell Computer Corporation
9505 Arboretum Blvd., BR1
Austin, TX 78759-7299
Phone: 512-728-5572
Fax: 512-728-8078

Brennan, John, Ed.D.
Systematic Mentoring: A Crucial Addition to Leadership Development
President
Adult Learning Futures, Inc.
Broomfield, CO 80020

Daman, Paran T., M.B.A.
Monkey Wrenches in the Team Clockwork
University Of Arkansas
College of Education
Vocational and Adult Education
P.O. Box 2730
100 Graduate Education Building
Fayetteville, AR 72701
Phone: 501-575-4758, 575-7163

Dean, Paul
Multiculturalism: Curriculum and Practice
Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256
Phone: 409-845-3016
Fax: 409-845-0409

Edwards, Gloria, M.A.
Personal Computer Training 2000—Time for a Change
University of Illinois at Urbana-Champaign
Department of Educational Psychology
210 Education
1310 South Sixth Street
Champaign, IL 61820
Phone: 217-333-2245
E-mail: edwards@ux1.cso.uiuc.ed

Edwards, Pamela K., M.A.
Multicultural Adult Education in the United States,or "We'll Deal with that Next Year"
228 Berkshire Rd.
Waterloo, IA 50701
Phone: 319-232-4505

Elxmann, Yvonne
Multiculturalism: Curriculum and Practice
Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256
Phone: 409-845-3016
Fax: 409-845-0409

Ellis, Sharon, M.S.E.
Women in Management—Climbing the Corporate Ladder
University of Arkansas
College of Education
201 Graduate Education Building
Fayetteville, AR 72701
Phone: 501-575-4282

Griggs, Dr. Harriet
Using Focus Groups to Develop More Realistic Training
Human Development and Consumer Sciences
University of Houston
4800 Calhoun Road
Houston, TX 77204-6861
Phone: 713-743-4119

Hamilton, Cathy
Multiculturalism: Curriculum and Practice
Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256
Phone: 409-845-3016
Fax: 409-845-0409

Henry, Deana
Multiculturalism: Curriculum and Practice
Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256
Phone: 409-845-3016
Fax: 409-845-0409

Homan, Scott Robert
Empowerment: Using Groupware to Create an Anonymous Forum to Discuss Workplace Issues—Lessons Learned
Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256
Phone: 409-845-3016
Fax: 409-845-0409

Ilacqua, Joseph A., Ed.D.
Trainer as Leader: A Catalyst for Workplace Change
Department of Economics
Bryant College
1150 Douglas Pike
Smithfield, RI 02917-1284
Phone: 401- 232-6098
Fax: 401-232-6319
E-mail: jilacqua@research1.bryant.edu

Ingram, Peggy
Women Academics and their Careers: The Impact of Creativity
42 Lazy Lane
The Woodlands, TX 77380
Phone: 713-367-9570, 367-1195

Jackson, T. F., Jr., Ed. D.
A New Myth Concerning Older Workers?
7010 Holly Mountain
San Antonio, TX 78250
Phone: 210-681-1429

Langston, Mildred Bunch, M.Ed.
The Effects of Goal Setting and Two Methods of Goal Origin in Transfer of Time Management Training to the Job
University of New Mexico
Independent Consultant,
Training Custom Designed
2904 Santa Clara SE
Albuquerque, NM 87106
Phone: 505-256-0109

Lee, Carla A. Bouska, Ph.D., ARNP, FNP, FAAN
Mentorship as a 21st Century Paradigm for Enhanced Individual Development within Human Resource Development Programs
Associate Professor/Graduate Faculty
Director of Family Nurse Practitioner Program
Fort Hays State University
Hays, KS 67601
Phone: 913-628-4515
Fax: 913-628-4290

Londoner, Carroll A., Ph.D.
The Roles Consultants Play in Problem-Solving Activities in Human Resources Development Settings, and
A Conceptual Systems Approach Model for Collaborative Consulting in Human Resources Development
Core-Coordinator, The Adult Education Program
Associate Professor, Adult Education & Human Resource Development
School of Education
Adult Education Program
Virginia Commonwealth University,
Richmond, VA 23284-2020
Phone: 804-740-0731

Martin, JoAnn, Ed.D.
Reading Manuals of Industry: Are They a Hazardous Material?
Department of Educational Human Resource Development
College of Education
Texas A&M University
College Station, TX 77845-3256
Phone: 409-845-3016
Fax: 409-845-0409

Paprock, Kenneth E., Ph.D.
Learning in Context: Creating the Learning Organization
Texas A&M University
Department Of Educational Human Resource Development
College of Education
College Station, TX 77843-3256
Phone: 409-845-5488
Fax: 409-845-0409
E-mail: paprock@zeus.tamu.edu.

Pevoto, Alan, Ph.D.
Systematic Mentoring: A Crucial Addition to Leadership Development
Regis University
3333 Regis Blvd.
Denver, CO 80221
Phone: 303-458-4088

Sanders, Martha J. Morgan, Ph.D., RN
Mentorship as a21st Century Paradigm for Enhanced Individual Development wthin Human Resource Development Programs
Assistant Professor/Graduate Faculty
Director of Baccalaureate Outreach Program
Fort Hays State University
Hays, KS 67601
Phone: 913-628-4255
Fax: 913-628-4290
E-mail: nums@fhsuvm.fhsu.edu

Seifert, Linda L., M.A.
Workplace Reasonable Accommodation Training
100 Graduate Education Building
University of Arkansas
Fayetteville, AR 72701
Phone: 501-575-7163

Shindell, Tom, M.A.
Modeling Argyris' Action Science
University of Texas at Austin
3200 South First Street #411
Austin, TX 78704
Phone: 512-471-7551 (U.T. Austin)
512-323-2736 (Academy of HRD)

Stewart, Dr. Barbara, M.A.
Using Focus Groups to Develop More Realistic Training
Human Development and Consumer Sciences
University of Houston
4800 Calhoun Road
Houston, TX 77204-6861
Phone: 713-743-4119

Syam, Deva
Multiculturalism: Curriculum and Practice
Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256
Phone: 409-845-3016
Fax: 409-845-0409

Tesoro, Ferdinand, Ph.D.
Exploring the Impact of Human Factors Technology in HRD
Coordinator, Industrial Supervision Program
Department of Industrial Technology
University of Houston
4800 Calhoun Road
Houston, TX 77204-4083
Phone: 713-743-4094
Fax: 713-743-4032

Yakimovicz, Ann, M.Sc.
Women Academics and Their Careers: The Impact of Creativity
Department of Educational Human Resource Development
Texas A&M University
College Station, TX 77843-3256
Phone: 409-862-2638
Fax: 409-845-0409

National Research Conference on HRD
Texas A&M University
COE/EHRD – Mail Stop 3256
College Station, Texas 77843-3256

NONPROFIT ORG.
U.S. POSTAGE
PAID
COLLEGE STATION
TEXAS 77843
PERMIT NO. 215